

Union Calendar No. 35

103D CONGRESS  
1ST SESSION

**H. R. 820**

[Report No. 103-771]

**A BILL**

To amend the Stevenson-Wylder Technology Innovation Act of 1980 to enhance manufacturing technology development and transfer, to authorize appropriations for the Technology Administration of the Department of Commerce, including the National Institute of Standards and Technology, and for other purposes.

MAY 3, 1993

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

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**IN THE HOUSE OF REPRESENTATIVES**

FEBRUARY 4, 1993

Mr. VALENTINE (for himself, Mr. BROWN, Mr. MINETA, Mrs. LLOYD, Mr. GLICKMAN, Mr. VOLKMER, Mr. BOEHLERT, Mr. HALL of Texas, Mr. MCCURDY, Mr. HENRY, Mr. TORRICELLI, Mr. BOUCHER, Mr. TRAFICANT, Mr. HAYES, Mr. BACCHUS of Florida, Mr. ROEMER, Mr. CRAMER, Mr. SWETT, Mr. BARCIA, Mr. KLEIN, Mr. FINGERHUT, Mr. MCHALE, Mr. BECERRA, Ms. HARMAN, Mr. JOHNSON of Georgia, Mr. COPPERSMITH, Ms. ESHOO, Mr. INSLEE, Ms. E.B. JOHNSON of Texas, Mr. MINGE, Mr. SCOTT, Ms. WOOLSEY, Mr. MOORHEAD, Mr. REGULA, Mr. RIDGE, Mr. THORNTON, Mr. ENGEL, and Mr. OLVER) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

MAY 3, 1993

Additional sponsors: Mr. HINCHEY, Mr. DICKS, Mr. EVANS, Mr. HUGHES, Mr. LANCASTER, Mr. LAFALCE, Mr. MACHTLEY, Mr. KLINK, Mr. MOLLOHAN, Ms. KAPTUR, Ms. SHEPARD, Mr. MEEHAN.

MAY 3, 1993

Reported with an amendment, committed to the Committee of the Whole House on the State of the Union, and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in italic]

[For text of introduced bill, see copy of bill as introduced on February 4, 1993]

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# A BILL

To amend the Stevenson-Wydler Technology Innovation Act of 1980 to enhance manufacturing technology development and transfer, to authorize appropriations for the Technology Administration of the Department of Commerce, including the National Institute of Standards and Technology, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
 2 *tives of the United States of America in Congress assembled,*

## 3 ***TITLE I—GENERAL PROVISIONS***

### 4 ***SEC. 101. SHORT TITLE; TABLE OF CONTENTS.***

5 *(a) SHORT TITLE.—This Act may be cited as the “Na-*  
 6 *tional Competitiveness Act of 1993”.*

7 *(b) TABLE OF CONTENTS.—*

#### *TITLE I—GENERAL PROVISIONS*

*Sec. 101. Short title; table of contents.*

*Sec. 102. Findings.*

*Sec. 103. Purposes.*

*Sec. 104. Definitions.*

#### *TITLE II—MANUFACTURING*

##### *Subtitle A—Manufacturing Technology and Extension*

*Sec. 201. Short title.*

*Sec. 202. Findings, purpose, and statement of policy.*

*Sec. 203. Role of the Department of Commerce.*

*Sec. 204. National Technology Outreach Program.*

*Sec. 205. Advanced Manufacturing Technology Development Program.*

*Sec. 206. Miscellaneous and conforming amendments.*

*Sec. 207. Manufacturing Technology Centers.*

*Sec. 208. State Technology Extension Program.*

##### *Subtitle B—National Science Foundation Manufacturing Programs*

*Sec. 211. Role of the National Science Foundation in manufacturing.*

*Sec. 212. Engineering and Cooperative Research Centers.*

*Sec. 213. Manufacturing traineeships and fellowships.*

*Sec. 214. Total quality management.*

## TITLE III—CRITICAL TECHNOLOGIES

*Subtitle A—Benchmarking Science and Technology*

*Sec. 301. Benchmarking United States science and technology against foreign capabilities.*

*Subtitle B—Advanced Technology Program*

*Sec. 321. Development of program plan.*

*Sec. 322. Large scale research and development consortia.*

*Sec. 323. Technical amendments.*

*Subtitle C—Civilian Technology Loan Program*

*Sec. 331. Loan and loan guarantee authority.*

*Sec. 332. Operating plan and effective date.*

*Sec. 333. Terms and conditions.*

*Sec. 334. Technical assistance for lenders and borrowers.*

*Sec. 335. Outreach to economically depressed areas.*

*Sec. 336. Socially and economically disadvantaged individuals.*

*Sec. 337. Definitions.*

*Subtitle D—Civilian Technology Development Program*

*Sec. 341. Short title.*

*Sec. 342. Definitions.*

*Sec. 343. Establishment and purpose.*

*Sec. 344. Advisory Committee.*

*Sec. 345. Organization and licensing.*

*Sec. 346. Capital and management requirements.*

*Sec. 347. Financing for licensees.*

*Sec. 348. Issuance and guarantee of trust certificates.*

*Sec. 349. Venture capital for qualified business concerns.*

*Sec. 350. Operation.*

*Sec. 351. Regulations; liability.*

*Sec. 352. Technical assistance for licensees and qualified business concerns.*

*Sec. 353. Performance measures; Annual report.*

*Sec. 354. Reports, investigations, and examinations.*

*Sec. 355. Revocation and suspension of licenses; cease and desist orders.*

*Sec. 356. Injunctive relief.*

*Sec. 357. Conflicts of interest.*

*Sec. 358. Removal or suspension of directors and officers.*

*Sec. 359. Violations.*

*Sec. 360. Civil penalties.*

*Sec. 361. Antitrust savings clause.*

## TITLE IV—MISCELLANEOUS

*Sec. 401. Department of Commerce Technology Advisory Board.*

*Sec. 402. International standardization.*

*Sec. 403. Malcolm Baldrige Award amendments.*

*Sec. 404. Cooperative research and development agreements.*

*Sec. 405. Competitiveness assessments and evaluations.*

*Sec. 406. Study of semiconductor lithography technologies.*

*Sec. 407. American workforce quality partnerships.*

*Sec. 408. Severability.*

Sec. 409. Sunset.  
 Sec. 410. Use of domestic products.  
 Sec. 411. National Quality Program.

TITLE V—AUTHORIZATIONS OF APPROPRIATIONS

Sec. 501. Technology Administration.  
 Sec. 502. National Institute of Standards and Technology.  
 Sec. 503. Additional activities of the Technology Administration.  
 Sec. 504. National Science Foundation.  
 Sec. 505. Availability of appropriations.  
 Sec. 506. Sense of the Congress.

1 **SEC. 102. FINDINGS.**

2 *The Congress finds that—*

3 *(1) the creation, development, and adoption of*  
 4 *advanced technologies are significant determinants of*  
 5 *sustainable economic growth, productivity improve-*  
 6 *ment, and competitive standing;*

7 *(2) over the last decade, the rate of advanced*  
 8 *technology adoption in the United States has been*  
 9 *about half that of some prominent foreign nations*  
 10 *and has contributed to a relative decline in United*  
 11 *States industrial competitiveness;*

12 *(3) maintaining a highly competitive manufac-*  
 13 *turing base in the United States is essential for eco-*  
 14 *nomics prosperity and national welfare and requires*  
 15 *continuous development and adoption of advanced*  
 16 *manufacturing technologies that will enable United*  
 17 *States manufacturers to develop innovative products*  
 18 *rapidly and manufacture goods of the highest quality*  
 19 *at competitive prices;*

1           (4) there is general agreement on which fields of  
2           technology are critical for economic competitiveness  
3           through the first decade of the next century, but the  
4           United States Government must pursue a comprehensive  
5           strategy to ensure that the appropriate research,  
6           development, and applications activities and other reforms  
7           occur so these technologies are readily available  
8           to United States manufacturers for incorporation into  
9           products made in the United States;

10          (5) technology-based products of the twenty-first  
11          century must be developed incorporating the values of  
12          sustainable development, including low energy and  
13          material use, safety, recyclability, and minimal pollution;  
14

15          (6) the cost of and difficulty in obtaining investment  
16          capital for small high technology companies are significant  
17          deterrents to their formation, development, and growth;  
18

19          (7) standardization of weights and measures, including  
20          development and promotion of product and quality standards,  
21          has a significant role to play in competitiveness;  
22

23          (8) strategic technology planning for sustainable  
24          economic growth, the support of critical civilian technology  
25          research, development, and application, and

1     *advancement of manufacturing technology research,*  
2     *development, and adoption are appropriate Govern-*  
3     *ment roles; and*

4             *(9) programs established under this Act, and the*  
5     *amendments made by this Act, shall be funded as a*  
6     *result of shifting the total Federal investment in re-*  
7     *search and development to achieve a balance between*  
8     *support for defense and civilian activities, and shall*  
9     *not be financed through additional deficit spending.*

10   **SEC. 103. PURPOSES.**

11     *The purposes of this Act are to—*

12             *(1) promote and facilitate the creation, develop-*  
13     *ment, and adoption of technologies by United States*  
14     *companies throughout the Nation that will contribute*  
15     *significantly to United States competitiveness, em-*  
16     *ployment, and sustainable economic growth;*

17             *(2) improve the competitiveness of United States*  
18     *manufacturers, particularly small businesses, by de-*  
19     *veloping a nationwide technology outreach program*  
20     *to improve access to information, expertise, tech-*  
21     *nology, and management practices required to com-*  
22     *pete throughout the world;*

23             *(3) promote the development and rapid applica-*  
24     *tion of advanced manufacturing technologies and*  
25     *processes by United States manufacturers, with em-*

1     *phasis on environmentally sound practices and sus-*  
2     *tainable economic growth;*

3             *(4) stimulate long-term investment in United*  
4     *States companies engaged in development or utiliza-*  
5     *tion of critical or other advanced technologies;*

6             *(5) establish mechanisms to ensure synergistic*  
7     *linkages between Federal, State, and local initiatives*  
8     *aimed at enhancing the competitiveness of United*  
9     *States companies;*

10            *(6) enhance and expand the core programs of the*  
11     *National Institute of Standards and Technology, in-*  
12     *cluding the Advanced Technology Program; and*

13            *(7) monitor and assess foreign technology capa-*  
14     *bilities relative to those of the United States in order*  
15     *to assist United States companies and policymakers*  
16     *in identifying and responding to competitive opportu-*  
17     *nities and challenges.*

18     **SEC. 104. DEFINITIONS.**

19     *For purposes of this Act—*

20            *(1) the term “advanced manufacturing tech-*  
21     *nology” has the meaning given such term in section*  
22     *4 of the Stevenson-Wydler Technology Innovation Act*  
23     *of 1980, as amended by section 206(a) of this Act;*

24            *(2) the term “critical technologies” means tech-*  
25     *nologies identified as critical technologies pursuant to*



1 *section 603(d) of the National Science and Technology*  
2 *Policy, Organization, and Priorities Act of 1976 (42*  
3 *U.S.C. 6683(d));*

4 *(3) the term “Director” means the Director of the*  
5 *Institute;*

6 *(4) the term “Institute” means the National In-*  
7 *stitute of Standards and Technology;*

8 *(5) the term “modern technology” has the mean-*  
9 *ing given such term in section 4 of the Stevenson-*  
10 *Wylder Technology Innovation Act of 1980, as*  
11 *amended by section 206(a) of this Act;*

12 *(6) the term “Secretary” means the Secretary of*  
13 *Commerce;*

14 *(7) the term “small business” means a United*  
15 *States company that is a small business within the*  
16 *meaning given such term in the Small Business Act;*

17 *(8) the term “sustainable economic growth” has*  
18 *the meaning given such term in section 4 of the Ste-*  
19 *venson-Wylder Technology Innovation Act of 1980, as*  
20 *amended by section 206(a) of this Act;*

21 *(9) the term “United States company” has the*  
22 *meaning given such term in section (4) of the Steven-*  
23 *son-Wylder Technology Innovation Act of 1980, as*  
24 *amended by section 206(a) of this Act;*

(10) the term “United States manufacturer” has the meaning given such term in section 4 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended by section 206(a) of this Act; and

(11) the term “Under Secretary” means the Under Secretary of Commerce for Technology.

## **TITLE II—MANUFACTURING**

### **Subtitle A—Manufacturing Technology and Extension**

#### **SEC. 201. SHORT TITLE.**

This subtitle may be cited as the “Manufacturing Technology and Extension Act of 1993”.

#### **SEC. 202. FINDINGS, PURPOSE, AND STATEMENT OF POLICY.**

The Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.) is amended by adding at the end the following new title:

## **“TITLE III—MANUFACTURING TECHNOLOGY**

#### **“SEC. 301. FINDINGS, PURPOSE, AND STATEMENT OF POLICY.**

“(a) FINDINGS.—Congress finds and declares the following:

“(1) United States manufacturers, especially small businesses, require the adoption and implemen-

1     *tation of both modern and advanced manufacturing*  
2     *and process technologies to meet the challenge of for-*  
3     *eign competition.*

4             *“(2) The development and application of modern*  
5     *and advanced manufacturing technologies are vital to*  
6     *the sustainable economic growth, standard of living,*  
7     *competitiveness in world markets, and national secu-*  
8     *rity and welfare of the United States.*

9             *“(3) New developments in flexible, computer-inte-*  
10    *grated manufacturing, electronic manufacturing com-*  
11    *munications networks, and other new technologies*  
12    *make possible dramatic improvements across all in-*  
13    *dustrial sectors in productivity, quality, and the*  
14    *speed with which United States manufacturers can*  
15    *respond to changing market opportunities.*

16            *“(4) The application of advances in computer*  
17    *science and technology to manufacturing is also vital*  
18    *to the Nation’s prosperity, national and economic se-*  
19    *curity, industrial production, engineering, and sci-*  
20    *entific advancement.*

21            *“(5) The Department of Commerce’s Technology*  
22    *Administration can continue to play an important*  
23    *role in assisting United States companies to develop,*  
24    *test, and adopt modern and advanced manufacturing*  
25    *technologies and in establishing high-performance*

1        *computing technology testbeds to develop, refine, test,*  
2        *and transfer advanced manufacturing and*  
3        *networking technologies and associated applications.*

4        *“(b) PURPOSE.—It is the purpose of this title to con-*  
5        *tribute to the competitiveness of the United States by en-*  
6        *hancing the Department of Commerce’s technology pro-*  
7        *grams to—*

8                *“(1) provide United States manufacturers, espe-*  
9                *cially small businesses, with ready access to high*  
10              *quality advice and assistance in the development,*  
11              *adoption, and improvement of modern manufacturing*  
12              *processes and technology, and in solving their specific*  
13              *technology-based problems; and*

14              *“(2) encourage, facilitate, and support the devel-*  
15              *opment and adoption of advanced manufacturing*  
16              *principles and technologies by United States manu-*  
17              *facturers.*

18        *“(c) STATEMENT OF POLICY.—Congress declares that*  
19        *it is the policy of the United States that—*

20              *“(1) Federal agencies, particularly the Depart-*  
21              *ment of Commerce, shall work with United States*  
22              *manufacturers, labor, and the States to ensure that*  
23              *the United States is second to no other nation in the*  
24              *development, adoption, and use of modern and ad-*  
25              *vanced manufacturing technology;*

1           “(2) the Department of Commerce shall work  
2       with all the major Federal research and development  
3       agencies to encourage the development and adoption,  
4       by United States manufacturers, of advanced manu-  
5       facturing technologies, and shall work closely with  
6       United States manufacturers and labor, and with the  
7       Nation’s universities, to develop and test those tech-  
8       nologies; and

9           “(3) the Department of Commerce shall place a  
10      high priority on the establishment and growth of a  
11      National Technology Outreach Program to promote  
12      and facilitate the development and use by United  
13      States manufacturers of modern and advanced manu-  
14      facturing systems and applications for manufactur-  
15      ing.

16      “(d) CONSTRUCTION.—Nothing in this title shall be  
17      construed as modifying the duties and responsibilities of the  
18      Department of Energy with regard to its technology re-  
19      sources and expertise in matters under its jurisdiction.”.

20   **SEC. 203. ROLE OF THE DEPARTMENT OF COMMERCE.**

21      Title III of the Stevenson-Wydler Technology Innova-  
22      tion Act of 1980, as added by section 202 of this Act, is  
23      further amended by adding at the end the following new  
24      section:

1 ***“SEC. 302. ROLE OF THE DEPARTMENT OF COMMERCE.***

2       “(a) *DEPARTMENT OF COMMERCE.—Consistent with*  
3 *the purposes and policies of section 301, the Department*  
4 *of Commerce shall be the lead agency of the Federal Govern-*  
5 *ment in working with United States manufacturers and*  
6 *labor and the States to develop advanced manufacturing*  
7 *technologies and to promote and assist the adoption and*  
8 *use of modern and advanced manufacturing technologies,*  
9 *practices, and management techniques throughout the Unit-*  
10 *ed States. In carrying out this title, the Secretary, acting,*  
11 *as appropriate, through the Under Secretary and the Direc-*  
12 *tor, shall—*

13               “(1) *consult and cooperate with other Federal*  
14 *agencies, including the Department of Defense, the*  
15 *Department of Energy, and the National Aeronautics*  
16 *and Space Administration to ensure consistent and,*  
17 *where possible, coordinated efforts to promote the de-*  
18 *velopment and adoption of modern and advanced*  
19 *manufacturing technologies;*

20               “(2) *assist the Office of Science and Technology*  
21 *Policy in its efforts to coordinate the manufacturing*  
22 *technology activities of the various Federal agencies;*  
23 *and*

24               “(3) *work with representatives of Federal, State,*  
25 *and local agencies, manufacturing extension pro-*  
26 *grams, private industry, industry groups, worker or-*

1        *ganizations, and academia to encourage and facilitate*  
2        *the use of both advanced manufacturing technologies,*  
3        *including those developed by the Advanced Manufac-*  
4        *turing Technology Development Program established*  
5        *under section 304 of this Act, and modern manufac-*  
6        *turing technologies and practices to United States*  
7        *manufacturers.*

8        *The Secretary shall annually report to Congress on actions*  
9        *taken under this subsection.*

10        *“(b) OTHER FEDERAL AGENCIES.—To the extent per-*  
11        *mitted by other law, other Federal agencies shall cooperate*  
12        *with the Secretary in carrying out this title.”.*

13        ***SEC. 204. NATIONAL TECHNOLOGY OUTREACH PROGRAM.***

14        *Title III of the Stevenson-Wydler Technology Innova-*  
15        *tion Act of 1980, as added by sections 202 and 203 of this*  
16        *Act, is further amended by adding at the end the following*  
17        *new section:*

18        ***“SEC. 303. NATIONAL TECHNOLOGY OUTREACH PROGRAM.***

19        *“(a) ESTABLISHMENT AND PURPOSE.—There is hereby*  
20        *established a National Technology Outreach Program (in*  
21        *this section referred to as the ‘Outreach Program’), the pur-*  
22        *pose of which shall be to—*

23                *“(1) interconnect, programatically and electroni-*  
24                *cally, the Nation’s technology and manufacturing ex-*  
25                *tension centers, programs, and activities;*

1           “(2) improve the competitiveness of United  
2       States manufacturers and create jobs located in the  
3       United States; and

4           “(3) assist United States manufacturers, espe-  
5       cially small businesses, to expand and accelerate the  
6       use of cost-effective modern manufacturing tech-  
7       nologies and practices and to develop and adopt ad-  
8       vanced manufacturing technologies. The Secretary,  
9       acting through the Under Secretary and the Director,  
10      shall implement and coordinate the Outreach Pro-  
11      gram in accordance with an initial plan and a 5-  
12      year plan for the Outreach Program, to be submitted  
13      to the Congress under subsection (g).

14      “(b) PROGRAM COMPONENTS.—The Outreach Program  
15      shall constitute a partnership between the Department of  
16      Commerce, the States, the private sector, and, as appro-  
17      priate, shall include other Federal agencies to provide a na-  
18      tional system of manufacturing and technology extension  
19      centers and technical services to United States manufactur-  
20      ers, particularly small businesses. The Outreach Program  
21      shall include—

22           “(1) Manufacturing Outreach Centers established  
23      under subsection (c);

24           “(2) Regional Centers for the Transfer of Manu-  
25      facturing Technology established under section 25 of



1       *the National Institute of Standards and Technology*  
2       *Act (15 U.S.C. 278k);*

3               “(3) *the State Technology Extension Program es-*  
4       *tablished under section 26 of the National Institute of*  
5       *Standards and Technology Act (15 U.S.C. 278l);*

6               “(4) *the Outreach Program Information Network*  
7       *and the Clearinghouse established under subsections*  
8       *(d) and (e) of this section, respectively; and*

9               “(5) *other technology and manufacturing exten-*  
10       *sion centers that the Secretary considers appropriate*  
11       *for inclusion in the Outreach Program.*

12       “(c) *MANUFACTURING OUTREACH CENTERS.—(1) Eli-*  
13       *gible government and private sector organizations that are*  
14       *engaged in technology or manufacturing extension activities*  
15       *may apply to the Secretary for designation as Manufactur-*  
16       *ing Outreach Centers, in such form and manner as the Sec-*  
17       *retary may prescribe. Eligible organizations include Fed-*  
18       *eral, State, and local government agencies, extension pro-*  
19       *grams, universities, and laboratories; small business devel-*  
20       *opment centers; and professional societies, worker organiza-*  
21       *tions, industrial organizations, nonprofit organizations,*  
22       *community development organizations, community colleges,*  
23       *and technical schools and colleges.*

24               “(2) *The Secretary shall establish standards, consistent*  
25       *with the requirements of subsection (f), for designation of*

1 existing technology or manufacturing extension programs  
2 and for qualification of start-up programs as Manufactur-  
3 ing Outreach Centers.

4       “(3) The Secretary may, through a competitive proc-  
5 ess, make grants, subject to the availability of appropria-  
6 tions, to Manufacturing Outreach Centers designated in ac-  
7 cordance with the standards established under paragraph  
8 (2), to enable them to fulfill the purposes and perform the  
9 activities of the Outreach Program. If a State plan for tech-  
10 nology extension exists in a State where an applicant for  
11 a grant under this paragraph is operating or plans to oper-  
12 ate, the proposer shall demonstrate in its application that  
13 its proposal is compatible with such State plan. The pur-  
14 pose of such grants is to upgrade the overall quality of the  
15 Outreach Program and to contribute to the goal of ready  
16 availability of the services and information provided  
17 through the Outreach Program, including information on  
18 modern and advanced manufacturing technology, to all in-  
19 terested United States manufacturers. Such grants shall be  
20 awarded to increase the capabilities and capacity of Manu-  
21 facturing Outreach Centers. Manufacturing Outreach Cen-  
22 ters may not concurrently receive financial assistance  
23 under section 25 of the National Institute of Standards and  
24 Technology Act and grants under this paragraph. Grants  
25 may be awarded under this paragraph for an initial period

1 *not to exceed 3 years and may be renewed for one additional*  
2 *period, not to exceed 2 years. Such grants may not at any*  
3 *time exceed 50 percent of the operating costs and in-kind*  
4 *contributions of the grant recipient.*

5       “(4) *In selecting applicants to participate in the Out-*  
6 *reach Program and in making grants under paragraph (3),*  
7 *the Secretary shall solicit and consider evaluations of the*  
8 *applicant’s performance record and current capabilities,*  
9 *and the potential usefulness of the applicant’s proposal,*  
10 *from United States manufacturers that the Secretary con-*  
11 *siders qualified to make such evaluations.*

12       “(d) *OUTREACH PROGRAM INFORMATION NETWORK. —*  
13 *(1) The Department of Commerce shall provide for an in-*  
14 *stantaneous, interactive electronic communications network*  
15 *(in this section referred to as the ‘outreach network’) to serve*  
16 *the Outreach Program, to facilitate effective and efficient*  
17 *interaction within it, and to permit the collection and dis-*  
18 *semination in electronic form, in a timely and accurate*  
19 *manner, of information described in subsection (e). The out-*  
20 *reach network shall, wherever practicable, make use of exist-*  
21 *ing public and private computer networks, data bases, and*  
22 *electronic bulletin boards. The design, configuration, acqui-*  
23 *sition plan, and operating policies, including user fees and*  
24 *appropriate electronic access for public and private infor-*  
25 *mation suppliers and users, of the outreach network shall*

1 *be included in the 5-year plan prepared under subsection*  
2 *(g)(2) and shall address—*

3       “(A) *effective mechanisms for providing operat-*  
4 *ing funds for the maintenance and use of the outreach*  
5 *network established under this paragraph, including*  
6 *user fees, industry support, and continued Federal in-*  
7 *vestment;*

8       “(B) *the future operation and evolution of the*  
9 *outreach network, including its relationship with*  
10 *other public or private information services;*

11       “(C) *how to protect the copyrights of material*  
12 *distributed over the outreach network; and*

13       “(D) *appropriate policies—*

14               “(i) *to ensure the security of proprietary in-*  
15 *formation that might be available on the out-*  
16 *reach network and to protect the privacy of users*  
17 *of the outreach network; and*

18               “(ii) *to facilitate and limit access to the*  
19 *outreach network and its information to member*  
20 *organizations of the Outreach Program and to*  
21 *United States companies, State and local govern-*  
22 *ments, United States universities and colleges,*  
23 *and United States nonprofit organizations that*  
24 *the Secretary deems appropriate.*

1       “(2) *Except as provided in this section, the outreach*  
2 *network established under paragraph (1) shall be designed*  
3 *and configured in a manner that will enable interoper-*  
4 *ability with networks and technologies developed under the*  
5 *National High-Performance Computing Program described*  
6 *in section 101 of the High-Performance Computing Act of*  
7 *1991 (15 U.S.C. 5511).*

8       “(e) *CLEARINGHOUSE.—(1) The Secretary shall de-*  
9 *velop a clearinghouse system, using existing public and pri-*  
10 *vate sector information providers and carriers where appro-*  
11 *priate, to—*

12               “(A) *identify expertise and acquire information,*  
13 *appropriate to the purpose of the Outreach Program*  
14 *stated in subsection (a), from all appropriate Federal*  
15 *sources, and where appropriate from other sources,*  
16 *providing assistance where necessary in making such*  
17 *information electronically available through and com-*  
18 *patible with the outreach network;*

19               “(B) *ensure ready access, through the outreach*  
20 *network, by United States companies, Federal agen-*  
21 *cies, State and local governments, United States uni-*  
22 *versities and colleges, United States nonprofit organi-*  
23 *zations that the Secretary deems appropriate, and*  
24 *member organizations of the Outreach Program, to*

1       *the most recent relevant available information and ex-*  
2       *pertise;*

3               “(C) *ensure that common standards of inter-*  
4       *connection are utilized by the outreach network and*  
5       *the clearinghouse to allow maximum interoperability*  
6       *and usership; and*

7               “(D) *to the extent practicable, inform United*  
8       *States manufacturers of the availability of such infor-*  
9       *mation.*

10       “(2) *The clearinghouse shall include information*  
11       *available electronically on—*

12               “(A) *activities of Manufacturing Outreach Cen-*  
13       *ters, Regional Centers for the Transfer of Manufactur-*  
14       *ing Technology, the State Technology Extension Pro-*  
15       *gram, and the users of the outreach network;*

16               “(B) *domestic and international standards and*  
17       *other export promotion information, including con-*  
18       *formity assessment requirements and procedures;*

19               “(C) *the Malcolm Baldrige Quality program,*  
20       *and quality principles and standards;*

21               “(D) *manufacturing processes minimizing waste*  
22       *and negative environmental impact;*

23               “(E) *federally funded technology development*  
24       *and transfer programs;*

25               “(F) *how to access data bases and services; and*

1           “(G) skills training, particularly the implemen-  
2           tation and use of modern and advanced manufactur-  
3           ing techniques.

4           “(3) The Secretary, acting through the Under Sec-  
5           retary, may convene a national conference to develop rec-  
6           ommendations for common standards for interconnection  
7           and for improved dissemination to users of the clearing-  
8           house of information on domestic and international tech-  
9           nical regulations and standards, and on conformity assess-  
10          ment procedures, including draft standards and regula-  
11          tions. Invited participants are to include a broad cross sec-  
12          tion of the standards, accreditation, and user communities.

13          “(f) *ADDITIONAL REQUIREMENTS.*—In carrying out  
14          this section, the Secretary shall satisfy the following re-  
15          quirements:

16               “(1) The Outreach Program and the outreach  
17               network shall be established and operated through co-  
18               operation and cofunding among Federal, State, and  
19               local governments, other public and private contribu-  
20               tors, and end users that the Secretary determines are  
21               appropriate for providing maximum benefit to Unit-  
22               ed States manufacturers.

23               “(2) The Outreach Program and the outreach  
24               network shall utilize and leverage, to the extent prac-  
25               ticable, existing organizations, data bases, electronic

1     *networks, facilities, capabilities, and existing stand-*  
2     *ards for interconnection, and shall be designed to*  
3     *complement rather than supplant State and local pro-*  
4     *grams.*

5             *“(3) The Outreach Program and the outreach*  
6     *network shall be subject to all applicable provisions of*  
7     *law for the protection of trade secrets and business*  
8     *confidential information.*

9             *“(4) Access to the services available through the*  
10    *Outreach Program and information available through*  
11    *the outreach network servicing the Outreach Program*  
12    *shall be limited, as appropriate, to United States*  
13    *companies, State and local governments, United*  
14    *States universities and colleges, and United States*  
15    *nonprofit organizations that the Secretary deems ap-*  
16    *propriate.*

17            *“(5) Local or regional needs should determine*  
18    *the management structure and staffing of the Manu-*  
19    *facturing Outreach Centers. The Outreach Program*  
20    *shall strive for geographical balance with the ultimate*  
21    *goal of access for all United States manufacturers.*

22            *“(6) Manufacturing Outreach Centers should*  
23    *have the capability to deliver outreach services di-*  
24    *rectly to United States manufacturers, actively work*  
25    *with, rather than supplant, the private sector, and to*



1       *the extent practicable, maximize the exposure of Unit-*  
2       *ed States manufacturers to demonstrations of modern*  
3       *technologies in use, including flexible manufacturing*  
4       *practices.*

5               “(7) *The Department of Commerce shall develop*  
6       *mechanisms for—*

7                       “(A) *soliciting the perspectives of United*  
8       *States manufacturers using the services of the*  
9       *Manufacturing Outreach Centers and Regional*  
10       *Centers for the Transfer of Manufacturing Tech-*  
11       *nology; and*

12                      “(B) *evaluating the effectiveness of the Man-*  
13       *ufacturing Outreach Centers and Regional Cen-*  
14       *ters for the Transfer of Manufacturing Tech-*  
15       *nology.*

16       “(g) *PLAN AND REPORTS.—(1) Within 6 months after*  
17       *the date of enactment of this title, the Secretary, after con-*  
18       *sultation with the Under Secretary, the Director, the De-*  
19       *partment of Commerce Technology Advisory Board, and a*  
20       *cross-section of potential participants in the Outreach Pro-*  
21       *gram, shall submit an initial plan for the implementation*  
22       *of this title to Congress—*

23                      “(A) *describing how the Secretary will carry out*  
24       *the responsibility to create, operate, and support the*  
25       *Outreach Program and the outreach network, includ-*

1     *ing the interactive electronic linkage of Manufactur-*  
2     *ing Outreach Centers to the programs of the Tech-*  
3     *nology Administration and other appropriate Fed-*  
4     *eral, State, and local agencies;*

5             *“(B) establishing criteria and procedures, con-*  
6     *sistent with the requirements of this title, for—*

7                 *“(i) the selection of organizations to receive*  
8     *Department of Commerce services or financial*  
9     *assistance as part of the Outreach Program, in-*  
10    *cluding qualifications and training of technology*  
11    *extension agents;*

12                *“(ii) access to services provided by partici-*  
13    *pants in the Outreach Program and to informa-*  
14    *tion available through the outreach network serv-*  
15    *icing the Outreach Program; and*

16                *“(iii) the annual evaluation of the Outreach*  
17    *Program in achieving the purposes of this title;*  
18    *and*

19             *“(C) evaluating the need for and the benefits of*  
20    *a National Conference of States on Technology Exten-*  
21    *sion, similar in structure to the National Conference*  
22    *on Weights and Measures, and, if the Secretary deter-*  
23    *mines that such a Conference is advisable, developing,*  
24    *in consultation with the States and other interested*

1        *parties, a plan for the establishment, operation, fund-*  
2        *ing, and evaluation of such a Conference.*

3        *“(2) Within 1 year after the date of enactment of this*  
4        *title, the Secretary, in consultation with the Under Sec-*  
5        *retary, the Director, and the Department of Commerce*  
6        *Technology Advisory Board, shall prepare and submit to*  
7        *the Congress a 5-year plan for implementing the Outreach*  
8        *Program and the outreach network and clearinghouse estab-*  
9        *lished under subsections (d) and (e), respectively. Such 5-*  
10       *year plan shall identify appropriate methods for expanding*  
11       *the Outreach Program in a geographically balanced man-*  
12       *ner. Such 5-year plan shall include a detailed implementa-*  
13       *tion plan and cost estimates and shall take into consider-*  
14       *ation and build on the report submitted under paragraph*  
15       *(1).*

16       *“(3) Beginning with first year after submission of the*  
17       *5-year plan under paragraph (2), the Secretary shall annu-*  
18       *ally report to the Congress, at the time of the President’s*  
19       *annual budget request to Congress, on—*

20                *“(A) progress made in achieving the purposes of*  
21        *the Outreach Program described in subsection (a)*  
22        *using criteria and procedures established under sub-*  
23        *section (g)(1)(B)(iii);*

24                *“(B) changes proposed to the 5-year plan;*

25                *“(C) performance in adhering to schedules; and*

1           “(D) any recommendations for legislative  
2       changes necessary to enhance the Outreach Program.  
3       The report under this paragraph submitted at the end of  
4       the fourth year of operation of the Outreach Program shall  
5       include recommendations on whether to terminate the Out-  
6       reach Program or extend it for an additional period not  
7       to exceed 5 years.”.

8       **SEC. 205. ADVANCED MANUFACTURING TECHNOLOGY DE-**  
9                               **VELOPMENT PROGRAM.**

10       Title III of the Stevenson-Wydler Technology Innova-  
11       tion Act of 1980, as added by sections 202, 203, and 204  
12       of this Act, is further amended by adding at the end the  
13       following new section:

14       **“SEC. 304. ADVANCED MANUFACTURING TECHNOLOGY DE-**  
15                               **VELOPMENT PROGRAM.**

16       “(a) *ESTABLISHMENT.*—The Secretary, through the  
17       Under Secretary and the Director, shall establish an Ad-  
18       vanced Manufacturing Technology Development Program  
19       which shall include projects to develop advanced manufac-  
20       turing systems, networks, and electronic data exchange.

21       “(b) *PURPOSE.*—The purpose of the Advanced Manu-  
22       facturing Technology Development Program is to create col-  
23       laborative multiyear technology development programs in-  
24       volving United States companies and, as appropriate, co-  
25       operating with other Federal agencies and laboratories, the

1 *States, worker organizations, universities and colleges,*  
2 *independent research organizations, and other interested*  
3 *persons, in order to develop, refine, test, and transfer design*  
4 *and manufacturing technologies and associated applica-*  
5 *tions, including advanced computer integration and elec-*  
6 *tronic networks for manufacturing information exchange.*

7 “(c) *PROGRAM COMPONENTS.—The Advanced Manu-*  
8 *facturing Technology Development Program shall include—*

9 “(1) *the advanced manufacturing research and*  
10 *development activities at the Institute; and*

11 “(2) *one or more technology development testbeds*  
12 *within the United States, selected in accordance with*  
13 *procedures, including cost sharing, established for the*  
14 *Advanced Technology Program established under sec-*  
15 *tion 28 of the National Institute of Standards and*  
16 *Technology Act (15 U.S.C. 278n), whose purpose shall*  
17 *be to develop, refine, and test advanced manufactur-*  
18 *ing, data exchange, and networking technologies and*  
19 *associated applications and to facilitate the transfer*  
20 *of such technologies and applications to United States*  
21 *manufacturers.*

22 “(d) *FUNCTIONS AND ACTIVITIES.—The Advanced*  
23 *Manufacturing Technology Development Program, under*  
24 *the coordination of the Secretary, through the Director,*  
25 *shall—*

1           “(1) test and, as appropriate, facilitate and sup-  
2           port the development of the equipment, computer soft-  
3           ware, and systems integration necessary for the suc-  
4           cessful operation within the United States of ad-  
5           vanced design and manufacturing systems and associ-  
6           ated electronic networks;

7           “(2) establish at the Institute and the technology  
8           development testbed or testbeds—

9                   “(A) prototype advanced computer-inte-  
10                  grated manufacturing systems;

11                  “(B) prototype electronic networks linking  
12                  manufacturing systems; and

13                  “(C) prototype clean manufacturing sys-  
14                  tems;

15           “(3) assist United States companies to develop  
16           voluntary consensus standards relevant to advanced  
17           computer-integrated manufacturing operations, in-  
18           cluding standards for networks, electronic data inter-  
19           change, and digital product data specifications;

20           “(4) help to make high-performance computing  
21           and networking technologies an integral part of de-  
22           sign and production processes where appropriate;

23           “(5) conduct research to identify and overcome  
24           technical barriers to the successful and cost-effective  
25           operation of advanced manufacturing systems and

1       *networks and to promote and facilitate electronic data*  
2       *exchange;*

3               “(6) *facilitate the efforts of United States compa-*  
4       *nies to develop and test new applications for manu-*  
5       *facturing systems, networks, and information ex-*  
6       *change;*

7               “(7) *involve in the Advanced Manufacturing*  
8       *Technology Development Program, to the maximum*  
9       *extent practicable, both those United States manufac-*  
10       *turers which make manufacturing technology and re-*  
11       *lated computer equipment and software, and United*  
12       *States companies which buy such technology, equip-*  
13       *ment and software;*

14               “(8) *identify training needs, as appropriate, for*  
15       *managers, engineers, and employees of United States*  
16       *manufacturers in the operation and applications of*  
17       *advanced manufacturing technologies and networks,*  
18       *with particular emphasis on training for production*  
19       *workers in the effective use of advanced manufactur-*  
20       *ing technology;*

21               “(9) *work with United States companies, univer-*  
22       *sities, independent research organizations, and other*  
23       *interested parties to develop standards, tools, and*  
24       *techniques for the use of advanced computer-based*

1        *training systems, including multi-media and inter-*  
2        *active learning technologies;*

3                *“(10) involve small businesses in its activities;*

4                *“(11) exchange information and personnel, as*  
5        *appropriate, between the technology development*  
6        *testbeds and the outreach network created under sec-*  
7        *tion 303(d); and*

8                *“(12) coordinate its activities with the National*  
9        *High-Performance Computing Program described in*  
10       *section 101 of the High-Performance Computing Act*  
11       *of 1991 (15 U.S.C. 5511) to ensure that both pro-*  
12       *grams are complementary and compatible.*

13        *“(e) TESTBED AWARDS.—(1) In selecting applicants*  
14       *to receive awards under subsection (c)(2) of this section, the*  
15       *Secretary shall give preferential consideration to applicants*  
16       *that have existing computer expertise in manufacturing ap-*  
17       *plications and the ability to diffuse such expertise to United*  
18       *States companies, and that, in the case of joint research*  
19       *and development ventures, include both suppliers and users*  
20       *of advanced manufacturing technology. In the case of sys-*  
21       *tems described in subsection (d)(2)(C), the Secretary shall*  
22       *also give preferential consideration to applicants that have*  
23       *existing program expertise in clean manufacturing, includ-*  
24       *ing the areas of concurrent engineering, materials research,*  
25       *and environmental science, and which have a technology*



1 *transfer mechanism in place to transfer testbed results of*  
2 *a clean manufacturing program to industry participants.*

3       “(2) *An industry-led joint research and development*  
4 *venture applying for an award under subsection (c)(2) of*  
5 *this section may include one or more State research organi-*  
6 *zations, universities, Federal laboratories, independent re-*  
7 *search organizations, or Regional Centers for the Transfer*  
8 *of Manufacturing Technology (as created under section 25*  
9 *of the National Institute of Standards and Technology Act)*  
10 *and other organizations as the Secretary considers appro-*  
11 *priate.*

12       “(f) *ADVICE AND ASSISTANCE.—(1) Within 6 months*  
13 *after the date of enactment of this title, and before any re-*  
14 *quest for proposals is issued, the Secretary shall hold one*  
15 *or more workshops to solicit advice from United States com-*  
16 *panies and from other Federal agencies, particularly the*  
17 *Department of Defense, regarding the specific missions and*  
18 *activities of the testbeds.*

19       “(2) *The Secretary shall, to the greatest extent possible,*  
20 *coordinate activities under this section with activities of*  
21 *other Federal agencies and initiatives relating to computer-*  
22 *aided acquisition and logistics support, electronic data*  
23 *interchange, flexible computer-integrated manufacturing,*  
24 *and enterprise integration.*

1       “(3) *The Secretary may request and accept funds, fa-*  
 2       *cilities, equipment, or personnel from other Federal agencies*  
 3       *in order to carry out this section.*

4       “(g) *ANTITRUST SAVINGS CLAUSE.—This section shall*  
 5       *not be construed to modify, impair, or supersede the oper-*  
 6       *ation of the antitrust laws. For purposes of this subsection,*  
 7       *the term ‘antitrust laws’ has the meaning given it in sub-*  
 8       *section (a) of the first section of the Clayton Act (15 U.S.C.*  
 9       *12(a)), except that such term includes the Act of June 19,*  
 10       *1936 (49 Stat. 1526; 15 U.S.C. 13 et seq.), commonly*  
 11       *known as the Robinson Patman Act, and section 5 of the*  
 12       *Federal Trade Commission Act (15 U.S.C. 45) to the extent*  
 13       *that such section 5 applies to unfair methods of competi-*  
 14       *tion.’”.*

15       **SEC. 206. MISCELLANEOUS AND CONFORMING AMEND-**  
 16       **MENTS.**

17       “(a) *DEFINITIONS.—Section 4 of the Stevenson-Wydler*  
 18       *Technology Innovation Act of 1980 (15 U.S.C. 3703) is*  
 19       *amended by adding at the end the following new para-*  
 20       *graphs:*

21               “(14) *‘Director’ means the Director of the Na-*  
 22       *tional Institute of Standards and Technology.*

23               “(15) *‘Institute’ means the National Institute of*  
 24       *Standards and Technology.*

1           “(16) ‘Assistant Secretary’ means the Assistant  
2       Secretary of Commerce for Technology Policy.

3           “(17) ‘Advanced manufacturing technology’  
4       means—

5                   “(A) numerically-controlled machine tools,  
6               robots, automated process control equipment,  
7               computerized flexible manufacturing systems, as-  
8               sociated computer software, and other technology  
9               for improving manufacturing and industrial  
10              production of goods, including biotechnology  
11              products, which advance the state-of-the-art; or

12                   “(B) novel manufacturing techniques and  
13               processes not previously generally available that  
14               improve manufacturing quality, productivity,  
15               and practices, including engineering design,  
16               quality assurance, concurrent engineering, con-  
17               tinuous process production technology, inventory  
18               management, upgraded worker skills, commu-  
19               nications with customers and suppliers, and pro-  
20               motion of sustainable economic growth.

21           “(18) ‘Modern technology’ means the best avail-  
22       able proven technology, techniques, and processes ap-  
23       propriate to enhancing the productivity of manufac-  
24       turers or to promoting sustainable economic growth.

1           “(19) ‘Sustainable economic growth’ means eco-  
2           nomic growth that enhances the national quality of  
3           life and preserves environmental integrity.

4           “(20) ‘United States company’ means a com-  
5           pany described in section 28(d)(9)(B) of the National  
6           Institute of Standards and Technology Act (15 U.S.C.  
7           278n(d)(9)(B)).

8           “(21) ‘United States manufacturer’ means a  
9           company described in section 28(d)(9) of the National  
10          Institute of Standards and Technology Act (15 U.S.C.  
11          278n(d)(9)) that is engaged in manufacturing activi-  
12          ties. The Secretary, in applying subparagraph (A) of  
13          such section 28(d)(9) for purposes of this Act, may  
14          make a finding under that subparagraph based on  
15          certification by the company.

16          “(22) ‘Benchmarking’ means the assessment of  
17          foreign science and technology capabilities relative to  
18          comparable United States capabilities.

19          “(23) ‘Independent research organizations’  
20          means nonprofit organizations organized primarily  
21          for the purpose of conducting or managing research  
22          activities.”.

23          (b) REDESIGNATIONS.—The Stevenson-Wydler Tech-  
24          nology Innovation Act of 1980 (15 U.S.C. 3701 et seq.) is  
25          amended—

1           (1) by inserting immediately after section 4 the  
 2           following new title heading:

3       **“TITLE I—DEPARTMENT OF COM-**  
 4       **MERCE AND RELATED PRO-**  
 5       **GRAMS”;**

6           (2) by redesignating sections 5 through 10 as sec-  
 7           tions 101 through 106, respectively;

8           (3) by redesignating sections 16 through 22, as  
 9           sections 107 through 113, respectively;

10          (4) by inserting immediately after section 113  
 11          (as redesignated by paragraph (3) of this subsection)  
 12          the following new title heading:

13               **“TITLE II—FEDERAL**  
 14               **TECHNOLOGY TRANSFER”;**

15          (5) by redesignating sections 11 through 15 as  
 16          sections 201 through 205, respectively;

17          (6) by redesignating section 23 as section 206;

18          (7) in section 4—

19               (A) by striking “section 5” each place it ap-  
 20               pears and inserting in lieu thereof “section 101”;

21               (B) in paragraphs (4) and (6), by striking  
 22               “section 6” and “section 8” each place they ap-  
 23               pear and inserting in lieu thereof “section 102”  
 24               and “section 104”, respectively; and

1           (C) in paragraph (13), by striking “section  
2           6” and inserting in lieu thereof “section 102”;

3           (8) in section 105 (as redesignated by paragraph  
4           (2) of this subsection) by striking “section 6” each  
5           place it appears and inserting in lieu thereof “section  
6           102”;

7           (9) in section 106(d) (as redesignated by para-  
8           graph (2) of this subsection) by striking “7, 9, 11, 15,  
9           17, or 20” and inserting in lieu thereof “103, 105,  
10          108, 111, 201, or 205”;

11          (10) in section 201(i) (as redesignated by para-  
12          graph (5) of this subsection) by inserting “loan, lease,  
13          or” after “may”; and by inserting “Actions taken  
14          under this subsection shall not be subject to Federal  
15          requirements on the disposal of property.” after  
16          “activities.”;

17          (11) in section 202(b) (as redesignated by para-  
18          graph (5) of this subsection) by striking “section 14”  
19          and inserting in lieu thereof “section 204”;

20          (12) in section 204(a)(1) (as redesignated by  
21          paragraph (5) of this subsection) by striking “section  
22          12” and inserting in lieu thereof “section 202”;

23          (13) in section 113 (as redesignated by para-  
24          graph (3) of this subsection) by striking “sections 11,

1       12, and 13” and inserting in lieu thereof “sections  
2       201, 202, and 203”;

3               (14) in section 206 (as redesignated by para-  
4       graph (6) of this subsection)—

5               (A) by striking “section 11(b)” in sub-  
6       section (a)(2) and inserting in lieu thereof “sec-  
7       tion 201(b)”;

8               (B) by striking “section 6(d)” in subsection  
9       (b) and inserting in lieu thereof “section  
10       102(d)”;

11              (15) by adding at the end of section 201 (as re-  
12       designated by paragraph (5) of this subsection) the  
13       following new subsection:

14       “(j) *ADDITIONAL TECHNOLOGY TRANSFER MECHA-*  
15       *NISMS.—In addition to the technology transfer mechanisms*  
16       *set forth in this section and section 202 of this Act, the*  
17       *heads of Federal departments and agencies also may trans-*  
18       *fer technologies through the technology transfer and exten-*  
19       *sion programs of the Department of Commerce and the*  
20       *Department of Defense.”.*

21       **SEC. 207. MANUFACTURING TECHNOLOGY CENTERS.**

22       Section 25 of the National Institute of Standards and  
23       Technology Act (15 U.S.C. 278k), is amended—

24              (1) by amending the section heading to read as  
25       follows: “MANUFACTURING TECHNOLOGY CENTERS”;

1           (2) in subsection (c)(5), by striking “which are  
2       designed” and all that follows through “operation of  
3       a Center” and inserting in lieu thereof “to a maxi-  
4       mum of one-third Federal funding. Each Center  
5       which receives financial assistance under this section  
6       shall be evaluated during its sixth year of operation,  
7       and at such subsequent times as the Secretary consid-  
8       ers appropriate, by an evaluation panel appointed by  
9       the Secretary in the same manner as was the evalua-  
10      tion panel previously appointed. The Secretary shall  
11      not provide funding for additional years of the Cen-  
12      ter’s operation unless the evaluation is positive and  
13      the Secretary finds that continuation of funding fur-  
14      thers the goals of the Department. Such additional  
15      Federal funding shall not exceed one-third of the cost  
16      of the Center’s operations”;

17           (3) by striking subsection (d); and

18           (4) by adding at the end the following new sub-  
19      sections:

20      “(d) If a Center receives a positive evaluation during  
21      its third year of operation, the Director may, any time after  
22      that evaluation, contract with the Center to provide addi-  
23      tional technology extension or transfer services above and  
24      beyond the baseline activities of the Center. Such additional



1 *services may include, but are not limited to, the develop-*  
2 *ment and operation of the following:*

3       “(1) *Programs to assist United States companies*  
4 *that are engaged in manufacturing and their employ-*  
5 *ees, including front-line production workers, in the*  
6 *Center’s region to learn and apply the technologies,*  
7 *techniques, and processes associated with systems*  
8 *management technology, electronic data exchange, or*  
9 *improving manufacturing productivity.*

10       “(2) *Services focused on the testing, development,*  
11 *and application of manufacturing and process tech-*  
12 *nologies within specific technical fields such as ad-*  
13 *vanced materials or electronics fabrication for the*  
14 *purpose of assisting United States companies that are*  
15 *engaged in manufacturing, both within the Center’s*  
16 *original service region and in other regions, to im-*  
17 *prove manufacturing quality, product design,*  
18 *workforce training, and production efficiency in those*  
19 *specific technical fields.*

20       “(3) *Industry-led demonstration programs that*  
21 *involve United States manufacturing technology con-*  
22 *sortia to provide ongoing research, technology trans-*  
23 *fer, and worker training assistance to their members.*  
24 *An award under this paragraph shall be for no more*

1        *than \$500,000 per year, and shall be subject to re-*  
2        *newal after a 1-year demonstration period.*

3        *“(e) In addition to any assistance provided or con-*  
4        *tracts entered into with a Center under this section, the Di-*  
5        *rector is authorized to make separate and smaller awards,*  
6        *through a competitive process, to nonprofit organizations*  
7        *which wish to work with a Center. Such awards shall be*  
8        *for the purpose of enabling those organizations to provide*  
9        *outreach services, in collaboration with the Center, to Unit-*  
10       *ed States manufacturers located in parts of the region*  
11       *served by the Center which are not easily accessible to the*  
12       *Center and which are not served by any other manufactur-*  
13       *ing outreach center. Organizations which receive such*  
14       *awards shall be known as Local Manufacturing Offices. In*  
15       *reviewing applications, the Director shall consider the needs*  
16       *of rural as well as urban manufacturers. No single award*  
17       *for a Local Manufacturing Office shall be for more than*  
18       *three years, awards shall be renewable through the competi-*  
19       *tive awards process, and no award shall be made unless*  
20       *the applicant provides matching funds at least equal to the*  
21       *amount received under this section.*

22       *“(f) In carrying out this section, the Director shall co-*  
23       *ordinate his efforts with the plans for the National Tech-*  
24       *nology Outreach Program established under section 303 of*  
25       *the Stevenson-Wydler Technology Innovation Act of 1980.”.*

1 **SEC. 208. STATE TECHNOLOGY EXTENSION PROGRAM.**

2 (a) *ESTABLISHMENT.*—Section 26(a) of the National  
3 Institute of Standards and Technology Act (15 U.S.C.  
4 2781(a)), is amended—

5 (1) by inserting immediately after “(a)” the fol-  
6 lowing new sentence: “There is established within the  
7 Institute a State Technology Extension Program.”;  
8 and

9 (2) by inserting “through that Program” imme-  
10 diately after “technical assistance”.

11 (b) *ADDITIONAL AUTHORITIES.*—Section 26 of the Na-  
12 tional Institute of Standards and Technology Act (15  
13 U.S.C. 2781) is amended by adding at the end the following  
14 new subsection:

15 “(c) In addition to the general authorities listed in  
16 subsection (b) of this section, the State Technology Exten-  
17 sion Program also may, through merit-based competitive re-  
18 view processes—

19 “(1) make awards to States and conduct work-  
20 shops, pursuant to section 5121(b) of the Omnibus  
21 Trade and Competitiveness Act of 1988, in order to  
22 help States improve their planning and coordination  
23 of technology extension activities;

24 “(2) support technology demonstration projects  
25 to help States provide technical assistance and serv-

1       ices to United States manufacturers that will improve  
2       their productivity and competitiveness;

3           “(3) support State efforts to develop and test in-  
4       novative ways to help United States manufacturers  
5       improve their technical capabilities;

6           “(4) support State efforts designed to help Unit-  
7       ed States manufacturers in rural as well as urban  
8       areas adopt modern manufacturing technologies;

9           “(5) support State efforts to assist interested  
10      United States manufacturers in the defense industry  
11      to adapt to modern or advanced manufacturing tech-  
12      nologies as they convert to nondefense or dual-use  
13      purposes;

14          “(6) support worker technology education pro-  
15      grams in the States at institutions such as research  
16      universities, community colleges, labor education cen-  
17      ters, labor-management committees, and worker orga-  
18      nizations in production technologies critical to the  
19      Nation’s future, with an emphasis on high-perform-  
20      ance work systems, the skills necessary to use modern  
21      or advanced manufacturing systems well;

22          “(7) help States develop programs to train per-  
23      sonnel who in turn can provide technical skills to  
24      managers and workers of United States manufactur-  
25      ers; and

1           “(8) support State efforts to assist United States  
2           manufacturers to develop on-the-job training in mod-  
3           ern and advanced manufacturing technologies, tech-  
4           niques, and processes and to promote the development  
5           and adoption of modern and advanced manufacturing  
6           technologies.”.

7           **Subtitle B—National Science Foun-**  
8           **dation Manufacturing Programs**

9           **SEC. 211. ROLE OF THE NATIONAL SCIENCE FOUNDATION**  
10           **IN MANUFACTURING.**

11           *The Director of the National Science Foundation, after*  
12           *appropriate consultation with the Secretary, the Under Sec-*  
13           *retary, and the Director, shall—*

14           (1) *work with United States companies to iden-*  
15           *tify areas of research in advanced manufacturing*  
16           *technologies and practices that offer the potential to*  
17           *improve United States productivity, competitiveness,*  
18           *employment, and sustainable economic growth;*

19           (2) *support research at United States univer-*  
20           *sities to improve advanced manufacturing tech-*  
21           *nologies and practices; and*

22           (3) *work with the Technology Administration*  
23           *and the Institute and, as appropriate, other Federal*  
24           *agencies to accelerate the transfer to United States*

1        *companies of manufacturing research and innova-*  
2        *tions developed at universities.*

3        **SEC. 212. ENGINEERING AND COOPERATIVE RESEARCH**  
4        **CENTERS.**

5        *The Director of the National Science Foundation shall*  
6        *strengthen and expand the number of Engineering Research*  
7        *Centers and strengthen and expand the Industry/University*  
8        *Cooperative Research Centers Program with the goal of in-*  
9        *creasing the engineering talent base versed in critical tech-*  
10       *nologies, with emphasis on advanced manufacturing tech-*  
11       *nology and practices, and of advancing fundamental engi-*  
12       *neering knowledge in these technologies, including bio-*  
13       *technology. At least one Engineering Research Center shall*  
14       *have a research and education focus on the concerns of*  
15       *United States manufacturers, including small businesses*  
16       *that are trying to modernize their operations. Awards*  
17       *under this section shall be made on a competitive, merit*  
18       *review basis and on terms and conditions the Director may*  
19       *prescribe to ensure that the purposes for which the award*  
20       *is made are satisfied. Such awards may include support*  
21       *for acquisition of instrumentation, equipment, and facili-*  
22       *ties related to the research and education activities of the*  
23       *Centers and support for undergraduate students to partici-*  
24       *pate in the activities of the Centers.*

1 **SEC. 213. MANUFACTURING TRAINEESHIPS AND FELLOW-**  
2 **SHIPS.**

3 (a) *GRADUATE TRAINEESHIPS.*—The Director of the  
4 National Science Foundation, in consultation with the Sec-  
5 retary, may establish a program to provide traineeships to  
6 graduate students at institutions of higher education within  
7 the United States who are citizens of the United States and  
8 who choose to pursue masters or doctoral degrees in manu-  
9 facturing engineering. The Director of the National Science  
10 Foundation shall make an effort to ensure the provision of  
11 traineeships under this subsection to socially and economi-  
12 cally disadvantaged individuals (within the meaning of sec-  
13 tion 8(a) (5) and (6) of the Small Business Act, and includ-  
14 ing women).

15 (b) *MANUFACTURING MANAGERS IN THE CLASSROOM*  
16 *PROGRAM.*—The Director of the National Science Founda-  
17 tion, in consultation with the Secretary, may establish a  
18 program to provide fellowships, on a cost-shared basis, to  
19 employees of United States companies with experience in  
20 manufacturing to serve for 1 or 2 years as instructors in  
21 manufacturing at 2-year community and technical colleges  
22 in the United States.

23 **SEC. 214. TOTAL QUALITY MANAGEMENT.**

24 The Director of the National Science Foundation, in  
25 consultation with the Secretary, the Under Secretary, and  
26 the Director, may establish a program to develop innovative

1 *curricula, courses, and materials for use by institutions of*  
 2 *higher education for instruction in total quality manage-*  
 3 *ment and related management practices, in order to help*  
 4 *improve the productivity of United States companies.*

5 ***TITLE III—CRITICAL***  
 6 ***TECHNOLOGIES***  
 7 ***Subtitle A—Benchmarking Science***  
 8 ***and Technology***

9 ***SEC. 301. BENCHMARKING UNITED STATES SCIENCE AND***  
 10 ***TECHNOLOGY AGAINST FOREIGN CAPABILI-***  
 11 ***TIES.***

12 *The Stevenson-Wydler Technology Innovation Act of*  
 13 *1980, as amended by this Act, is further amended by adding*  
 14 *at the end the following new title:*

15 ***“TITLE IV—BENCHMARKING***  
 16 ***SCIENCE AND TECHNOLOGY***

17 ***“SEC. 401. FINDINGS AND PURPOSES.***

18 *“(a) FINDINGS.—As other countries have gained*  
 19 *strength in new technologies and as centers of technical ex-*  
 20 *cellence have developed around the world, it has become in-*  
 21 *creasingly important for United States companies and re-*  
 22 *search organizations to understand their scientific and tech-*  
 23 *nological capabilities relative to those of other global com-*  
 24 *petitors.*



1       “(b) *PURPOSES.*—The purposes of this title are to con-  
2     duct and coordinate the collection, evaluation, and dissemi-  
3     nation, to United States companies, State and local govern-  
4     ments, and nonprofit organizations, of information on for-  
5     eign science and technology, specifically information assess-  
6     ing foreign capabilities relative to comparable United  
7     States capabilities.

8     **“SEC. 402. PROGRAM RESPONSIBILITIES.**

9       “(a) *DEPARTMENT OF COMMERCE.*—The Department  
10    of Commerce shall be the lead agency of the Federal Govern-  
11    ment in making available information for assessing the  
12    comparative strength of United States scientific and techno-  
13    logical capabilities. The Secretary, acting through the  
14    Under Secretary, shall—

15           “(1) collect within the Federal Government and  
16       disseminate to United States companies, State and  
17       local governments, and nonprofit organizations infor-  
18       mation regarding foreign process and product re-  
19       search and technologies of importance to United  
20       States companies and the Federal Government, and  
21       regarding related technology assessment activities al-  
22       ready underway in the Federal Government;

23           “(2) provide such information and analyses in  
24       electronic form, and ensure, consistent with confiden-  
25       tiality and security considerations, that they will be

1     *available through the clearinghouse to the outreach*  
2     *network created under section 303 of this Act;*

3             *“(3) work, in coordination with the Federal Co-*  
4     *ordinating Council for Science, Engineering, and*  
5     *Technology, as appropriate, to streamline Federal*  
6     *Government procedures for collecting, evaluating, and*  
7     *disseminating information analyzing foreign sci-*  
8     *entific and technological information; and*

9             *“(4) conduct appropriate planning for more*  
10    *comprehensive collection, evaluation, dissemination,*  
11    *and application of foreign science and technology in-*  
12    *formation.*

13            *“(b) OTHER AGENCIES.—All executive departments*  
14    *and agencies shall assist the Secretary in carrying out this*  
15    *title.*

16            *“(c) ADDITIONAL AUTHORITIES.—The Secretary, act-*  
17    *ing through the Under Secretary, is authorized to—*

18                *“(1) arrange for access to information collected*  
19    *and developed under this title, in electronic form or*  
20    *otherwise, by authorized and interested parties, in-*  
21    *cluding charging and retaining fees;*

22                *“(2) provide for the collection of additional in-*  
23    *formation to fulfill the purposes of this title;*

24                *“(3) provide for analysis of foreign research and*  
25    *development activities and technological capabilities,*

1       *particularly in those areas where the United States is*  
2       *considered to be at par or lagging foreign capabilities*  
3       *or where foreign capabilities are projected to overtake*  
4       *those of the United States;*

5               “(4) enter into joint ventures authorized under  
6       *section 212(a)(1)(A) of Public Law 100–519 (15*  
7       *U.S.C. 3704b(a)(1)(a)) in carrying out this title;*

8               “(5) consult with users of such information, as  
9       *appropriate, on the usefulness of available foreign sci-*  
10       *entific and technological information and on the need*  
11       *for additional information and assessment activities*  
12       *and consult with other affected agencies of the Federal*  
13       *Government to promote consistent and useful collec-*  
14       *tion, assessment, and analysis of foreign technological*  
15       *information; and*

16               “(6) establish and administer the fellowship pro-  
17       *gram described in subsection (d).*

18       “(d) *FELLOWSHIP PROGRAM.—(1) The Secretary, act-*  
19       *ing through the Under Secretary, shall establish and ad-*  
20       *minister a fellowship program to support Technology Fel-*  
21       *lows to assist the Under Secretary in carrying out activities*  
22       *under this title relating to those countries that are major*  
23       *competitors of the United States in critical technologies,*  
24       *and to identify opportunities for technology transfer to the*

1 *United States or technological collaboration for United*  
 2 *States industries.*

3 “(2) *Technology Fellows shall—*

4 “(A) *regularly report to the Department of Com-*  
 5 *merce on work planned, in progress, and accom-*  
 6 *plished; and*

7 “(B) *provide support to the Department of Com-*  
 8 *merce as requested by that Department.*

9 “(3) *Fellowships awarded under the program estab-*  
 10 *lished under this subsection shall—*

11 “(A) *be awarded for a period of 2 years;*

12 “(B) *be reasonable and appropriate; and*

13 “(C) *include provisions for living and office ar-*  
 14 *rangements in the host country.*

15 “(4) *Only individuals who—*

16 “(A) *have at least a bachelors degree in engineer-*  
 17 *ing or science; and*

18 “(B) *have at least 5 years of work experience in*  
 19 *manufacturing or technology development,*  
 20 *shall be eligible for a fellowship under this program.”.*

21 ***Subtitle B—Advanced Technology***  
 22 ***Program***

23 ***SEC. 321. DEVELOPMENT OF PROGRAM PLAN.***

24 *The Secretary, acting through the Under Secretary*  
 25 *and the Director, shall, within 6 months after the date of*

1 *enactment of this Act, submit to the Congress a plan for*  
2 *the expansion of the Advanced Technology Program estab-*  
3 *lished under section 28 of the National Institute of Stand-*  
4 *ards and Technology Act (15 U.S.C. 278n), with specific*  
5 *consideration given to—*

6 *(1) closer coordination and cooperation with the*  
7 *Advanced Research Projects Agency and other Federal*  
8 *research and development agencies, including joint*  
9 *funding of large scale consortia, as appropriate;*

10 *(2) broadening of the scope of the program to in-*  
11 *clude and focus on as many critical technologies iden-*  
12 *tified pursuant to section 603(d) of the National*  
13 *Science and Technology Policy, Organization, and*  
14 *Priorities Act of 1976 (42 U.S.C. 6683(d)) as is ap-*  
15 *propriate; and*

16 *(3) changes that may be needed when annual*  
17 *funds available for awards and cooperative agree-*  
18 *ments under the Program reach levels of \$200,000,000*  
19 *and \$500,000,000.*

20 **SEC. 322. LARGE SCALE RESEARCH AND DEVELOPMENT**  
21 **CONSORTIA.**

22 *(a) ESTABLISHMENT OF PROGRAM.—The Secretary,*  
23 *acting through the Director, shall establish a program for*  
24 *the support of large-scale research and development*  
25 *consortia.*

1       (b) *SELECTION PROCEDURES AND REQUIREMENTS.*—

2           (1) *GENERAL RULE.*—Except as provided in  
3       paragraph (2), the selection and making of awards to  
4       large-scale research and development consortia under  
5       this section shall be carried out in accordance with  
6       procedures and requirements applicable to joint ven-  
7       tures described in section 28(b)(1) of the National In-  
8       stitute of Standards and Technology Act (15 U.S.C.  
9       278n(b)(1)).

10          (2) *EXCEPTION.*—Notwithstanding section  
11       28(b)(1)(B)(ii) of the National Institute of Standards  
12       and Technology Act (15 U.S.C. 278n(b)(1)(B)(ii)), for  
13       purposes of awards made under this section, a minor-  
14       ity share of the cost of large-scale research and devel-  
15       opment consortia may be provided by the Federal  
16       Government for up to 7 years.

17       (c) *PROJECT SELECTION.*—Preference shall be given  
18       for selection under this section to large-scale research and  
19       development consortia that would not be undertaken by the  
20       private sector without a Federal investment of \$50,000,000  
21       or more per year.

22       (d) *SELECTION CRITERIA.*—In selecting large-scale re-  
23       search and development consortia under this section, the  
24       Secretary, acting through the Director, shall give priority  
25       to consortia that best achieve the following goals:

1           (1) *Significant contribution to broad economic*  
2           *growth.*

3           (2) *Significant contribution to the national*  
4           *quality of life.*

5           (3) *Significant contribution to environmental*  
6           *sustainability.*

7           (4) *Promotion of private sector partnership with*  
8           *Federal research and development activities.*

9           (5) *Substantial improvement of the international*  
10          *competitiveness of United States companies.*

11          (6) *Involvement of several competitor firms in*  
12          *the development of the key consortia technologies.*

13          (7) *Strengthening of the linkages between domes-*  
14          *tic suppliers, systems developers, and end-users.*

15          (8) *Participation by domestic end-users from*  
16          *several industrial sectors.*

17          (9) *Promotion of the diffusion of nonproprietary*  
18          *information to United States companies through*  
19          *strong links with organizations such as trade and*  
20          *professional groups.*

21          (e) *INDEPENDENT TECHNICAL REVIEW.*—*The Sec-*  
22          *retary, through the Director, shall provide for technical re-*  
23          *view at least once every three years of large-scale research*  
24          *and development consortia receiving support under this sec-*  
25          *tion, by the National Institute of Standards and Tech-*

1 nology, other national laboratories, the Department of Com-  
 2 merce Technology Advisory Board established under section  
 3 401 of this Act, or independent research organizations that  
 4 are not a participant in the large-scale research and devel-  
 5 opment consortium being reviewed. Such review shall be for  
 6 the purpose of determining progress toward the objectives  
 7 for which such large-scale research and development consor-  
 8 tium was formed, with recommendations for improvement,  
 9 funding adjustments, or termination of Federal support.  
 10 The Secretary, through the Director, shall transmit to the  
 11 Committee on Science, Space, and Technology of the House  
 12 of Representatives and the Committee on Commerce,  
 13 Science, and Transportation of the Senate an annual status  
 14 report summarizing significant accomplishments in achiev-  
 15 ing those objectives.

16 (f) *DEFINITION.*—For purposes of this section, the term  
 17 “large-scale research and development consortia” means a  
 18 joint venture described in section 28(b)(1) of the National  
 19 Institute of Standards and Technology Act (15 U.S.C.  
 20 278n(b)(1)).

21 **SEC. 323. TECHNICAL AMENDMENTS.**

22 Section 28 of the National Institute of Standards and  
 23 Technology Act (15 U.S.C. 278n) is amended—

24 (1) by adding at the end the following new subsection:



1       “(k) Notwithstanding subsections (b)(1)(B)(ii) and  
 2     (d)(3), the Director may grant an extension of not to exceed  
 3     6 months beyond the deadlines established under those sub-  
 4     sections for joint venture and single applicant awardees to  
 5     expend Federal funds to complete their projects, if such ex-  
 6     tension may be granted with no additional cost to the  
 7     Federal Government.”;

8                 (2) in subsection (b)(2), by inserting “, and with  
 9     independent research organizations” after “especially  
 10    small businesses”; and

11                (3) in subsection (j)—

12                         (A) by redesignating paragraphs (1) and  
 13                         (2) as paragraphs (2) and (3), respectively; and

14                         (B) by inserting before paragraph (2), as so  
 15                         redesignated, the following new paragraph:

16                         “(1) the term ‘independent research organiza-  
 17                         tions’ means nonprofit organizations organized pri-  
 18                         marily for the purpose of conducting or managing re-  
 19                         search activities;”.

## 20       **Subtitle C—Civilian Technology** 21       **Loan Program**

### 22       **SEC. 331. LOAN AND LOAN GUARANTEE AUTHORITY.**

23       *To the extent provided in appropriation Acts, the Sec-*  
 24       *retary, acting through the Under Secretary, may make, or*  
 25       *enter into agreements to make, loans and loan guarantees,*

1 *either directly or in cooperation with other lenders, to small*  
2 *and medium-sized qualified business concerns in accord-*  
3 *ance with this subtitle.*

4 **SEC. 332. OPERATING PLAN AND EFFECTIVE DATE.**

5       (a) *OPERATING PLAN.*—*The Secretary, acting through*  
6 *the Under Secretary, shall prepare (in consultation with*  
7 *the Advisory Committee established under section 344, other*  
8 *appropriate executive agencies, the States, United States*  
9 *companies, the financial community, and other appropriate*  
10 *parties) and submit to the Congress on or before November*  
11 *1, 1993, an operating plan to carry out this subtitle. In*  
12 *preparing such plan, the Secretary shall consider and*  
13 *evaluate alternative approaches to achieving the purposes*  
14 *of this subtitle and shall develop recommendations, as ap-*  
15 *propriate, to fulfill the purposes of this subtitle in the most*  
16 *effective and efficient manner achievable. Such evaluations*  
17 *and recommendations shall be included in the plan submit-*  
18 *ted under this subsection.*

19       (b) *EFFECTIVE DATE.*—*Except as provided in sub-*  
20 *section (a), the provisions of this subtitle shall take effect*  
21 *on October 1, 1994.*

22 **SEC. 333. TERMS AND CONDITIONS.**

23       *Loans and loan guarantees made under section 331*  
24 *shall be in such form and manner and under such terms*  
25 *and conditions as the Under Secretary may prescribe by*

1 *regulation, and shall be subject to the following terms and*  
2 *conditions:*

3           (1) *Loans awarded or guaranteed shall be for*  
4 *sound financing of research, development, demonstra-*  
5 *tion, or utilization of critical technologies or ad-*  
6 *vanced technologies.*

7           (2) *Loans shall only be awarded or guaranteed*  
8 *if the Under Secretary finds that—*

9                   (A) *sufficient collateral, which may include*  
10 *both tangible and intangible assets, is pledged; or*

11                   (B) *the borrower is sufficiently financially*  
12 *sound,*

13 *to reasonably ensure repayment.*

14           (3) *Loans awarded or guaranteed may not ex-*  
15 *ceed 50 percent of total eligible project costs. For pur-*  
16 *poses of this section, the term “eligible project costs”*  
17 *shall be defined by the Under Secretary by regulation.*

18           (4) *The total principal amount of outstanding*  
19 *loans awarded or guaranteed to a single borrower*  
20 *may not exceed \$2,000,000 at any time.*

21           (5) *Loans awarded or guaranteed shall be senior*  
22 *to any other debt obligations of the borrower, except*  
23 *to the extent that the Under Secretary considers nec-*  
24 *essary to accommodate the borrower’s ability to raise*  
25 *sufficient debt or equity capital from non-Federal*

1        *sources to pay the balance of eligible project costs that*  
2        *are not covered by such loans.*

3            *(6) Interest on a loan, or portion of a loan,*  
4        *awarded or guaranteed by the Federal Government*  
5        *under this subtitle shall be at a rate determined by*  
6        *the Secretary of the Treasury, at the time such loan*  
7        *is made, to equal the then current average market*  
8        *yield on outstanding debt obligations of the United*  
9        *States with remaining periods to maturity com-*  
10       *parable to the maturity of such loan, plus an addi-*  
11       *tional charge of up to 1 percent applied by the Under*  
12       *Secretary to cover expected defaults and reasonable*  
13       *administrative costs of carrying out this subtitle. For*  
14       *purposes of this section, the term “default” shall be*  
15       *defined by the Under Secretary by regulation.*

16           *(7) Except as provided in paragraph (8), the*  
17        *maturity of loans awarded or guaranteed under this*  
18        *subtitle may not be less than 2 years or greater*  
19        *than—*

20                    *(A) 10 years; or*

21                    *(B) the useful life of property, plant, equip-*  
22        *ment, or other assets, as determined by the Sec-*  
23        *retary of the Treasury, which have been pledged*  
24        *as collateral for such loan,*

25        *whichever is greater.*

1           (8) *The Under Secretary may extend the matu-*  
2           *urity of or renew a loan or extend the guarantee of a*  
3           *loan for additional periods, not to exceed 5 years,*  
4           *only if such extension or renewal will aid in the or-*  
5           *derly liquidation of such loan.*

6           (9) *Payment of interest on direct loans made by*  
7           *the Federal Government under this subtitle may be*  
8           *deferred by the borrower, upon approval by the Under*  
9           *Secretary, only to the extent that the borrower has es-*  
10          *tablished to the satisfaction of the Under Secretary*  
11          *that the borrower has not realized sufficient earnings*  
12          *and returns of capital to make such payment without*  
13          *incurring undue financial hardship, and that there is*  
14          *a reasonable prospect that such loan and interest*  
15          *thereon will be repaid.*

16          (10) *The Under Secretary may guarantee pay-*  
17          *ment of 100 percent of principal and interest on a*  
18          *loan made under section 331.*

19          (11) *The Under Secretary may establish, charge,*  
20          *and regulate fees to cover loan origination and servic-*  
21          *ing costs that are reasonable and necessary.*

22   **SEC. 334. TECHNICAL ASSISTANCE FOR LENDERS AND BOR-**  
23                   **ROWERS.**

24          *The Secretary, acting through the Under Secretary,*  
25          *shall, upon request, provide technical assistance and serv-*

1 ices, as appropriate and needed, to lenders and borrowers  
2 under this subtitle, and shall ensure that such lenders and  
3 borrowers have ready access to appropriate assistance avail-  
4 able under title III of the Stevenson-Wydler Technology In-  
5 novation Act of 1980, or under any other Act, in order to  
6 aid such lenders and borrowers in achieving the purposes  
7 described in section 333(1). The Secretary may charge fees  
8 for technical assistance and services provided under this  
9 section in amounts sufficient to cover the reasonable cost  
10 of such assistance and services. The Secretary may waive  
11 such fees on a case-by-case basis. Fees paid to the United  
12 States under this section shall be deposited in an account  
13 established by the Under Secretary and shall be available  
14 solely for carrying out this subtitle, to the extent provided  
15 in advance in appropriations Acts.

16 **SEC. 335. OUTREACH TO ECONOMICALLY DEPRESSED**  
17 **AREAS.**

18 The Secretary, acting through the Under Secretary,  
19 shall seek to ensure that qualified business concerns located  
20 in areas determined by the Secretary to have a depressed  
21 economy, or a significant concentration of defense-related  
22 industries, or chronically high unemployment, are notified  
23 of the availability of financial assistance through the pro-  
24 gram established under this subtitle and, to the extent prac-

1 *ticable, to encourage and facilitate the participation of such*  
 2 *qualified business concerns in such program.*

3 **SEC. 336. SOCIALLY AND ECONOMICALLY DISADVANTAGED**  
 4 **INDIVIDUALS.**

5 *The Secretary shall, to the fullest extent possible, en-*  
 6 *sure that at least 10 percent of amounts loaned under this*  
 7 *subtitle shall be made available to qualified business con-*  
 8 *cerns owned or controlled by socially and economically dis-*  
 9 *advantaged individuals (within the meaning of section 8(a)*  
 10 *(5) and (6) of the Small Business Act, and including*  
 11 *women).*

12 **SEC. 337. DEFINITIONS.**

13 *For purposes of this subtitle, the terms “advanced tech-*  
 14 *nologies”, “critical technologies”, and “qualified business*  
 15 *concern” have the meaning given such terms in section 342*  
 16 *of this Act.*

17 **Subtitle D—Civilian Technology**  
 18 **Development Program**

19 **SEC. 341. SHORT TITLE.**

20 *This subtitle may be cited as the “Civilian Technology*  
 21 *Development Act of 1993”.*

22 **SEC. 342. DEFINITIONS.**

23 *For purposes of this subtitle—*

24 *(1) the term “advanced technologies” means tech-*  
 25 *nologies eligible for assistance under the Advanced*

1     *Technology Program established under section 28 of*  
2     *the National Institute of Standards and Technology*  
3     *Act (15 U.S.C. 278n);*

4             *(2) the term “articles” means articles of incorpo-*  
5     *ration for an incorporated body, and the functional*  
6     *equivalent, or other similar documents specified by*  
7     *the Under Secretary, for other business entities;*

8             *(3) the term “critical technologies” means tech-*  
9     *nologies identified as critical technologies pursuant to*  
10    *section 603(d) of the National Science and Technology*  
11    *Policy, Organization, and Priorities Act of 1976 (42*  
12    *U.S.C. 6683(d));*

13            *(4) the term “Department” means the Depart-*  
14    *ment of Commerce;*

15            *(5) the term “executive agency” has the meaning*  
16    *given such term in section 105 of title 5, United*  
17    *States Code;*

18            *(6) the term “license” means a license issued by*  
19    *the Under Secretary under section 345;*

20            *(7) the term “licensee” means a company li-*  
21    *censed under section 345;*

22            *(8) the term “preferred securities” means pre-*  
23    *ferred stock or a preferred limited partnership inter-*  
24    *est or other similar security, as defined by the Under*  
25    *Secretary by regulation;*



1           (9) the term “private equity capital” means the  
2       paid-in capital and paid-in surplus, on hand or le-  
3       gally committed to be provided, of a licensee orga-  
4       nized as a corporation, or the partnership capital, on  
5       hand or legally committed to be provided, of a li-  
6       censee organized as an unincorporated partnership,  
7       but does not include any funds—

8           (A) borrowed by the licensee from any  
9       source;

10          (B) obtained from the sale of preferred secu-  
11       rities; or

12          (C) derived directly or indirectly from any  
13       Federal source;

14       (10) the term “qualified business concern” means  
15       a United States company described in section  
16       28(d)(9)(B) of the National Institute Standards and  
17       Technology Act (15 U.S.C. 278n(d)(9)(B)), if—

18           (A) the business of such company includes  
19       the pursuit, under the Small Business Innova-  
20       tion Research (SBIR) program, of applications  
21       described in section 9(e)(4)(C) of the Small Busi-  
22       ness Act (15 U.S.C. 638(e)(4)(C));

23           (B) the principal business of such company  
24       is the development or application of a critical  
25       technology;

1           (C) such company is eligible for assistance  
2           under the Advanced Technology Program (ATP)  
3           established under section 28 of the National In-  
4           stitute of Standards and Technology Act (15  
5           U.S.C. 278n); or

6           (D) such company is principally engaged in  
7           the development or exploitation of inventions,  
8           technological improvements, new processes, or  
9           products not previously generally available  
10          (within the meaning of section 851(e)(1) of the  
11          Internal Revenue Code of 1986);

12          (11) the term “State” means several States, the  
13          District of Columbia, the Commonwealth of Puerto  
14          Rico, the Virgin Islands, Guam, American Samoa,  
15          and the Commonwealth of the Northern Mariana Is-  
16          lands, and any other territory or possession of the  
17          United States;

18          (12) the term “State sponsored licensee” means  
19          a company licensed under section 345 in which a  
20          State or instrumentality of a State has at least a 25  
21          percent investment interest in the private equity cap-  
22          ital of such licensee;

23          (13) the term “university sponsored licensee”  
24          means a company licensed under section 345 in  
25          which a single university or consortium of univer-

1        *sities has at least a 25 percent investment interest in*  
2        *the private equity capital of such licensee; and*

3            *(14) the term “venture capital” means consider-*  
4        *ation for such—*

5            *(A) common stock;*

6            *(B) preferred stock;*

7            *(C) debt with equity features which may in-*  
8        *clude equity warrants or rights to convert into*  
9        *common stock and which provides for interest*  
10       *payments contingent upon and limited to the ex-*  
11       *tent of earnings; or*

12           *(D) other financing,*

13        *as the Under Secretary determines to be substantially*  
14       *similar to equity financing, issued by a qualified*  
15       *business concern.*

16    ***SEC. 343. ESTABLISHMENT AND PURPOSE.***

17        *(a) ESTABLISHMENT.—There is established within the*  
18       *Technology Administration of the Department of Commerce*  
19       *a national program to stimulate and supplement the avail-*  
20       *ability of long-term investment capital for the formation,*  
21       *development, and growth of qualified business concerns*  
22       *throughout the United States. The Secretary, through the*  
23       *Under Secretary, shall, through such program, provide for*  
24       *the selection, licensing, monitoring, and financial and tech-*  
25       *nical support of professionally managed technology invest-*

1 *ment companies which in turn shall provide financial,*  
2 *management, and technical assistance to qualified business*  
3 *concerns, with preference given to satisfying the seed and*  
4 *early-stage financing needs of such concerns that are not*  
5 *being met by other sources on reasonable terms.*

6 *(b) PURPOSES.—The purposes of this subtitle are—*

7 *(1) to contribute to United States economic com-*  
8 *petitiveness, employment, and prosperity;*

9 *(2) to promote the advancement, maturation,*  
10 *and application of critical and other advanced tech-*  
11 *nologies;*

12 *(3) to supplement and stimulate long-term in-*  
13 *vestment in qualified business concerns; and*

14 *(4) to encourage and facilitate the formation and*  
15 *growth of professionally managed technology invest-*  
16 *ment companies throughout the United States that*  
17 *will give preference to satisfying the capital needs of*  
18 *qualified business concerns, especially during their*  
19 *early stages of development.*

20 *(c) RESPONSIBILITIES.—(1) In carrying out this sub-*  
21 *title, the Secretary, acting through the Under Secretary,*  
22 *and subject to the availability of appropriations, shall—*

23 *(A) consult with and, to the extent permitted by*  
24 *law, utilize the capabilities of other executive agen-*

1        *cies, as appropriate, to ensure the efficient and effec-*  
2        *tive implementation of this subtitle;*

3            *(B) explore, with other executive agencies, ways*  
4        *to avoid duplication of effort by consolidating the ad-*  
5        *ministration of the program established by this sub-*  
6        *title with any other similar Federal program, and as*  
7        *part of such consolidation may delegate administra-*  
8        *tive functions, as necessary and appropriate, to an-*  
9        *other executive agency; and*

10          *(C) consult with the Secretary of Energy on all*  
11        *policy matters related to the Civilian Technology De-*  
12        *velopment Program that deal with development or*  
13        *utilization of energy technologies.*

14        *(2) To the extent permitted by law, other executive*  
15        *agencies shall cooperate with the Under Secretary in carry-*  
16        *ing out this subtitle.*

17        *(d) OPERATING PLAN.—The Secretary, acting through*  
18        *the Under Secretary, shall prepare (in consultation with*  
19        *the Advisory Committee established under section 344, other*  
20        *appropriate executive agencies, the States, United States*  
21        *companies, the financial community, and other appropriate*  
22        *parties) and submit to the Congress on or about November*  
23        *1, 1993, an operating plan to carry out this subtitle. In*  
24        *preparing such plan, the Secretary shall consider and*  
25        *evaluate alternative approaches to achieving the purposes*

1 *of this subtitle and shall develop recommendations, as ap-*  
 2 *propriate, to fulfill the purposes of this subtitle in the most*  
 3 *effective and efficient manner achievable. Such evaluations*  
 4 *and recommendations shall be included in the plan submit-*  
 5 *ted under this subsection.*

6 (e) *OUTREACH TO ECONOMICALLY DEPRESSED*  
 7 *AREAS.—The Secretary, acting through the Under Sec-*  
 8 *retary, shall seek to ensure that qualified business concerns*  
 9 *located in areas determined by the Secretary to have a de-*  
 10 *pressed economy, or a significant concentration of defense-*  
 11 *related industries, or chronically high unemployment, are*  
 12 *notified of the availability of financial assistance through*  
 13 *the program established under this subtitle and, to the ex-*  
 14 *tent practicable, to encourage and facilitate the participa-*  
 15 *tion of such qualified business concerns in such program.*

16 (f) *EFFECTIVE DATE.—Except as provided in sub-*  
 17 *section (d) and in sections 344 and 351(a), the provisions*  
 18 *of this subtitle shall take effect on October 1, 1994.*

19 **SEC. 344. ADVISORY COMMITTEE.**

20 (a) *ESTABLISHMENT.—There is established a Civilian*  
 21 *Technology Development Advisory Committee (in this sec-*  
 22 *tion referred to as the “CTD Advisory Committee”).*

23 (b) *COMPOSITION.—The CTD Advisory Committee*  
 24 *shall be composed of 7 members, appointed by the Under*  
 25 *Secretary from among private individuals who, because of*

1 *their experience and accomplishments in technology devel-*  
2 *opment, maturation, and adoption, business development,*  
3 *venture capital, finance, or other relevant areas, are excep-*  
4 *tionally qualified to perform the duties of the CTD Advisory*  
5 *Committee. The Under Secretary shall designate 1 member*  
6 *to serve as chairman.*

7       (c) *DUTIES.*—*The duties of the CTD Advisory Com-*  
8 *mittee shall include advising the Under Secretary on all*  
9 *matters related to policy, planning, execution, and evalua-*  
10 *tion of the program established under this subtitle.*

11       (d) *TERMINATION.*—*Section 14 of the Federal Advisory*  
12 *Committee Act shall not apply to the CTD Advisory Com-*  
13 *mittee.*

14 **SEC. 345. ORGANIZATION AND LICENSING.**

15       (a) *IN GENERAL.*—*Any incorporated body, limited*  
16 *partnership, or State instrumentality organized and char-*  
17 *tered or otherwise existing under State law for the purpose*  
18 *of performing the functions and conducting the activities*  
19 *contemplated under this subtitle, that possesses the powers,*  
20 *capabilities, and expertise reasonably necessary to perform*  
21 *such functions and conduct such activities, may apply for*  
22 *a license under this subtitle in such form and manner as*  
23 *the Under Secretary may prescribe.*

24       (b) *ARTICLES.*—*The articles of any applicant shall*  
25 *specify in general terms the objects for which the applicant*

1 *is formed, the name assumed by such applicant, the area*  
2 *or areas in which its operations are to be carried on, the*  
3 *place where its principal office is to be located, and the*  
4 *amount and classes of its shares of capital stock. Such arti-*  
5 *cles may contain any other provisions not inconsistent with*  
6 *this subtitle that the applicant may see fit to adopt for the*  
7 *regulation of its business and the conduct of its affairs.*  
8 *Such articles and any amendments thereto adopted from*  
9 *time to time shall be subject to the approval of the Under*  
10 *Secretary.*

11 *(c) BUSINESS PLAN.—The business plan of any appli-*  
12 *cant shall specify in general terms—*

13 *(1) how the applicant proposes to achieve the ob-*  
14 *jects for which it is formed, to operate and govern its*  
15 *business, and to fulfill the purposes and satisfy the re-*  
16 *quirements of this subtitle;*

17 *(2) the board members or general partners and*  
18 *the management and professional staff of the appli-*  
19 *cant, and the professional training, experience, rep-*  
20 *utation, and investment performance record, if any,*  
21 *of each such individual, along with a description of*  
22 *the applicant's current and proposed management*  
23 *structure;*

24 *(3) all current or committed private investors in*  
25 *the applicant, together with the amount, terms, condi-*



1        *tions, and conveyances associated with such invest-*  
2        *ment, and appropriate background information on*  
3        *each private investor; and*

4            *(4) such other information as the Under Sec-*  
5        *retary may require.*

6        *Such business plan and any material amendments thereto*  
7        *adopted from time to time shall be subject to the approval*  
8        *of the Under Secretary.*

9            *(d) APPROVAL OF ARTICLES AND BUSINESS PLAN; LI-*  
10        *CENSING.—The articles and business plan of an applicant*  
11        *for a license shall be forwarded to the Under Secretary for*  
12        *consideration and approval or disapproval. In determining*  
13        *whether to approve a prospective licensee's articles and*  
14        *business plan and permit it to operate under the provisions*  
15        *of this subtitle, the Under Secretary shall give due regard,*  
16        *among other things, to the general business reputation,*  
17        *character, suitability, and demonstrated ability, experience,*  
18        *and performance in the development, growth, and financing*  
19        *of qualified business concerns, of the proposed owners and*  
20        *management of the prospective licensee, and the likelihood*  
21        *of successful operations of the prospective licensee including*  
22        *adequate profitability and financial soundness. After con-*  
23        *sideration of all relevant factors, if the Under Secretary ap-*  
24        *proves the company's articles and business plan and deter-*  
25        *mines that the applicant satisfies or will satisfy the require-*

1 ments of this subtitle, the Under Secretary may approve  
2 the company to operate under the provisions of this subtitle  
3 and issue the company a license for such operation.

4 **SEC. 346. CAPITAL AND MANAGEMENT REQUIREMENTS.**

5 (a) CAPITAL.—(1) The private equity capital of a li-  
6 censee shall be adequate to ensure a reasonable prospect that  
7 the licensee will be operated soundly and profitably, and  
8 managed actively and prudently in accordance with its ar-  
9 ticles and business plan. Such private equity capital shall  
10 not be less than \$5,000,000, except that, in the case of a  
11 State sponsored licensee or a university sponsored licensee,  
12 such private equity capital shall not be less than  
13 \$2,500,000. At the time of issuance of a license, not less  
14 than 75 percent of the private equity capital of the licensee  
15 shall be available or committed to be available for new in-  
16 vestment in accordance with this subtitle.

17 (2) Private and public pension funds may contribute  
18 to the private equity capital of a licensee without restriction  
19 as to the amount of such contribution.

20 (3) State and local government entities may contribute  
21 not more than 40 percent of the total private equity capital  
22 of a licensee.

23 (4) The aggregate amount of shares in any such li-  
24 censee or licensees which may be owned or controlled by any

1 stockholder, or by any group or class of stockholders, may  
2 be limited by the Under Secretary.

3 (b) *MANAGEMENT.*—The management and operational  
4 control of a licensee shall be carried out by suitable private  
5 individuals who possess the professional training, experi-  
6 ence, and capabilities reasonably necessary to achieve the  
7 purposes of this subtitle.

8 **SEC. 347. FINANCING FOR LICENSEES.**

9 (a) *AUTHORITY TO PURCHASE AND GUARANTEE PRE-*  
10 *FERRED SECURITIES.*—To encourage and facilitate the for-  
11 mation and growth of licensees and qualified business con-  
12 cerns, the Under Secretary may purchase or commit to pur-  
13 chase nonvoting preferred securities, with or without equity  
14 warrants, issued by a licensee, or guarantee, or commit to  
15 guarantee, the payment of 100 percent of the redemption  
16 price of and dividends on such preferred securities, to the  
17 extent provided in appropriations Acts, if the licensee has  
18 demonstrated to the satisfaction of the Under Secretary that  
19 it is financially sound and that it has complied with or  
20 will comply with the requirements of this subtitle, the terms  
21 of its license, and any rule, regulation, or order issued  
22 under this subtitle. Such purchases and guarantees shall  
23 constitute direct loans and loan guarantees within the  
24 meaning of paragraphs (1) and (3) of section 502 of the  
25 Federal Credit Reform Act of 1990, respectively. A trust or

1 pool acting on behalf of the Under Secretary may purchase  
2 preferred securities that are guaranteed under this sub-  
3 section.

4 (b) *TERMS AND CONDITIONS OF PREFERRED SECURI-*  
5 *TIES.*—(1) *Guarantees and purchases of preferred securi-*  
6 *ties, or commitments to make such guarantees and pur-*  
7 *chases, under this section may be made on such terms and*  
8 *conditions as the Under Secretary shall establish by regula-*  
9 *tion or set forth in contract to ensure compliance with this*  
10 *subtitle and to protect the interests of taxpayers and the*  
11 *United States in the event of default or otherwise. For pur-*  
12 *poses of this paragraph, the Under Secretary shall by regu-*  
13 *lation define the term “default”.*

14 (2)(A) *Except as provided in subparagraph (B), pre-*  
15 *ferred securities issued under this section shall be senior in*  
16 *priority for all purposes to all non-Federal equity interests*  
17 *in a licensee unless the Under Secretary, in the exercise of*  
18 *reasonable investment prudence and in considering the fi-*  
19 *nancial soundness of the licensee, determines otherwise.*

20 (B) *The equity interests of a university or consortium*  
21 *of universities, or of a State or instrumentality of a State,*  
22 *in a licensee shall be equal in priority to Federal equity*  
23 *interests in such licensee for all purposes unless the Under*  
24 *Secretary, in the exercise of reasonable investment prudence*

1 *and in considering the financial soundness of the licensee,*  
2 *determines otherwise.*

3       (3) *Preferred securities issued under this section shall*  
4 *be redeemed by the issuer not later than 10 years after their*  
5 *date of issuance for an amount equal to 100 percent of the*  
6 *original issue price plus any accrued and unpaid divi-*  
7 *dends. In order to facilitate the orderly liquidation of a li-*  
8 *censee's investments, redemption of such preferred securities*  
9 *may be extended by mutual consent for no more than 5*  
10 *years beyond such expiration date.*

11       (4) *Preferred securities issued under this section shall*  
12 *pay dividends at a rate determined by the Secretary of the*  
13 *Treasury at the time of issuance to equal the then current*  
14 *average market yield on outstanding marketable debt obli-*  
15 *gations of the United States with remaining periods to ma-*  
16 *turity comparable to the time to required redemption of*  
17 *such preferred securities, plus such additional charge, if*  
18 *any, toward covering expected defaults and reasonable ad-*  
19 *ministrative costs of carrying out this subtitle as the Under*  
20 *Secretary may determine to be reasonable and appropriate.*  
21 *Such additional charge shall not exceed 2 percent.*

22       (5) *Dividends on preferred securities issued under this*  
23 *section shall be cumulative and preferred and paid out of*  
24 *net realized earnings and returns of capital available for*

1 *distribution, as defined by the Under Secretary by regula-*  
2 *tion.*

3       (6) *The payment of dividends on preferred securities*  
4 *issued under this section may be deferred by the issuer until*  
5 *such time as, and to the extent that, the issuer realizes earn-*  
6 *ings and returns of capital available for distribution. Accu-*  
7 *mulated and unpaid dividends on such preferred securities*  
8 *shall be paid by the issuer before or at the time of redemp-*  
9 *tion of the preferred securities and before any distribution*  
10 *of net realized earnings and returns of capital of the issuer*  
11 *to its non-Federal equity investors, except as provided in*  
12 *subsection (e)(2) (B) and (C). With respect to preferred se-*  
13 *curities issued under this section to a party other than the*  
14 *Under Secretary, during the time of any deferral under this*  
15 *paragraph, the Under Secretary shall make, on behalf of*  
16 *the issuer, required dividend payments to the holder of the*  
17 *preferred securities, its agents or assigns, or the appropriate*  
18 *central registration agent, if any. The authority to make*  
19 *dividend payments provided in this paragraph shall be lim-*  
20 *ited to the extent of amounts provided in advance in appro-*  
21 *priations Acts for such purposes.*

22       (7) *For purposes of this subsection, the term “divi-*  
23 *dends” means dividends on preferred stock and returns on*  
24 *preferred limited partnership interests or other similar se-*  
25 *curities, as defined by the Under Secretary by regulation.*

1       (c) *LIMITATIONS AND RESTRICTIONS.*—(1) *The total*  
2 *principal amount of debt, as evidenced by notes, bonds, de-*  
3 *bentures, or certificates of indebtedness, plus the total face*  
4 *amount of preferred securities purchased or guaranteed by*  
5 *the Under Secretary under subsection (a), issued and out-*  
6 *standing from a licensee shall not exceed 200 percent of the*  
7 *private equity capital of the licensee.*

8       (2) *The total face amount of preferred securities pur-*  
9 *chased or guaranteed by the Under Secretary under sub-*  
10 *section (a) and outstanding from a licensee or a combina-*  
11 *tion of licensees which are commonly controlled, as defined*  
12 *and determined by the Under Secretary, shall not exceed*  
13 *\$50,000,000.*

14       (3)(A) *If preferred securities issued under this section*  
15 *are outstanding, then the issuing licensee shall be subject*  
16 *to the following restrictions:*

17           (i) *The total principal amount of debt, as evi-*  
18 *denced by notes, bonds, debentures, or certificates of*  
19 *indebtedness, of a licensee issued and outstanding*  
20 *may not exceed 50 percent of the private equity cap-*  
21 *ital of the licensee.*

22           (ii) *The annual management expenses of a li-*  
23 *cencee shall not exceed an amount which the Under*  
24 *Secretary determines to be reasonable and appro-*  
25 *priate.*

1           (iii) *The aggregate amount of obligations and se-*  
2           *curities acquired and for which commitments may be*  
3           *issued by a licensee for any single qualified business*  
4           *concern shall not exceed \$2,000,000 or 20 percent of*  
5           *the private equity capital of such licensee, whichever*  
6           *is greater, unless the Under Secretary approves a*  
7           *greater amount.*

8           (B) *For purposes of this paragraph, the term “man-*  
9           *agement expenses” includes expenses incurred in the normal*  
10          *course of operations, but shall not include the cost of legal,*  
11          *accounting, and consulting services provided by outside*  
12          *parties and by affiliates of the licensee which are not nor-*  
13          *mal practice in making and monitoring investments con-*  
14          *sistent with the purposes of this subtitle.*

15          (d) *USE OF CAPITAL BY LICENSEES.—(1) A licensee*  
16          *issuing preferred securities under this section shall invest*  
17          *or commit to invest—*

18                (A) *an amount equal to the face value of such*  
19                *preferred securities that are outstanding; plus*

20                (B) *an amount of its private equity capital*  
21                *equal to 50 percent of the amount described in sub-*  
22                *paragraph (A),*

23          *in the venture capital of qualified business concerns in ac-*  
24          *cordance with section 349.*



1       (2) *At least 50 percent of the amount of investments*  
2 *required under paragraph (1) shall be for seed and early*  
3 *stage financing, as defined by the Under Secretary by regu-*  
4 *lation. The Under Secretary may alter the percentage re-*  
5 *quirement under this paragraph to the extent necessary, in*  
6 *the determination of the Under Secretary, to achieve the*  
7 *purposes of this subtitle and maintain prudent investment*  
8 *diversification.*

9       (3) *Proceeds to a licensee derived from preferred securi-*  
10 *ties issued under this section may be used by the issuer to*  
11 *redeem any preferred securities issued under this section*  
12 *that have been outstanding at least 5 years, as provided*  
13 *in subsection (b)(3).*

14       (4) *Proceeds to a licensee derived from preferred securi-*  
15 *ties issued under this section that have not been invested*  
16 *pursuant to paragraphs (1) and (2) or used for redemptions*  
17 *pursuant to paragraph (3) and are not reasonably needed*  
18 *for the operations of the licensee shall be invested in direct*  
19 *obligations of, or obligations guaranteed as to principal and*  
20 *interest by, the United States, or in certificates of deposit*  
21 *maturing within one year or less, issued by any institution*  
22 *the accounts of which are insured by the Federal Deposit*  
23 *Insurance Corporation.*

24       (e) *PROFIT DISTRIBUTION BY LICENSEES.—(1) Any*  
25 *distribution of net realized earnings and returns of capital*

1 *made by a licensee that exceeds amounts required for the*  
2 *purposes stated in paragraph (2) shall be distributed pro*  
3 *rata to all investors entitled to such distributions. The Unit-*  
4 *ed States shall receive no funds under this paragraph.*

5       (2)(A) *Except as provided in subparagraphs (B) and*  
6 *(C), any distribution of net realized earnings and returns*  
7 *of capital made by a licensee shall first be used to pay accu-*  
8 *mulated and unpaid dividends owed on outstanding pre-*  
9 *ferred securities issued under this section and to satisfy the*  
10 *redemption requirements of subsection (b)(3).*

11       (B) *For purposes of subparagraph (A), the redemption*  
12 *requirements of subsection (b)(3) shall be considered to be*  
13 *satisfied if necessary and appropriate actions, as deter-*  
14 *mined by the Under Secretary, have been undertaken by*  
15 *the licensee to ensure that such requirements will be satis-*  
16 *fied.*

17       (C) *If a licensee is operating as a limited partnership*  
18 *or as a corporation described in subchapter S of chapter*  
19 *1 of subtitle A of the Internal Revenue Code of 1986 or an*  
20 *equivalent pass-through entity for tax purposes, it may dis-*  
21 *tribute to the partners or shareholders an amount equal to*  
22 *the estimated amount of Federal, State, and local income*  
23 *taxes due from such partners and shareholders on their*  
24 *share of undistributed taxable income for the current tax-*

1 *able year before payments described in subparagraph (A)*  
 2 *are made.*

3 *(f) USE OF PAYMENTS TO THE UNITED STATES.—*  
 4 *Amounts received by the United States from the payment*  
 5 *of dividends and the redemption of preferred securities pur-*  
 6 *suant to this section, and fees paid to the United States*  
 7 *by a licensee pursuant to this subtitle, shall be deposited*  
 8 *in an account established by the Under Secretary and shall*  
 9 *be available solely for carrying out this subtitle, to the ex-*  
 10 *tent provided in advance in appropriations Acts.*

11 **SEC. 348. ISSUANCE AND GUARANTEE OF TRUST CERTIFI-**  
 12 **CATES.**

13 *(a) AUTHORITY TO ISSUE TRUST CERTIFICATES.—*  
 14 *The Under Secretary is authorized to issue trust certificates*  
 15 *representing ownership of all or a fractional part of pre-*  
 16 *ferred securities issued by licensees and guaranteed by the*  
 17 *Under Secretary under this subtitle. Such trust certificates*  
 18 *shall be based on and backed by a trust or pool approved*  
 19 *by the Under Secretary and composed of preferred securities*  
 20 *and such other contractual obligations as the Under Sec-*  
 21 *retary may undertake to facilitate the sale of such trust*  
 22 *certificates.*

23 *(b) GUARANTEE OF TRUST CERTIFICATES.—The*  
 24 *Under Secretary is authorized, upon such terms and condi-*  
 25 *tions as are deemed appropriate, to guarantee the timely*

1 *payment of the principal of and interest on trust certifi-*  
2 *cates issued by the Under Secretary or his agent for pur-*  
3 *poses of this section. Such guarantee shall be limited to the*  
4 *extent of the redemption price of and dividends on the pre-*  
5 *ferred securities, plus any related contractual obligations,*  
6 *which compose the trust or pool.*

7       (c) *PREPAYMENTS AND REDEMPTIONS.—In the event*  
8 *that preferred securities or contractual obligations in such*  
9 *trust or pool are redeemed or extinguished, either volun-*  
10 *tarily or involuntarily, the guarantee of timely payment*  
11 *of principal and interest on the trust certificates shall be*  
12 *reduced in proportion to the amount of redemption price*  
13 *and dividends such redeemed preferred security or extin-*  
14 *guished contractual obligation represents in the trust or*  
15 *pool. Dividends or partnership profit distributions on such*  
16 *preferred securities and related contractual obligations,*  
17 *shall accrue and be guaranteed by the Under Secretary only*  
18 *through the date of payment on the guarantee. During the*  
19 *term of the trust certificate, it may be called for redemption,*  
20 *whether voluntary or involuntary, of all preferred securities*  
21 *residing in the pool.*

22       (d) *FEES.—The Under Secretary may collect fees for*  
23 *a guarantee under this section that are reasonable and*  
24 *customary.*

1       (e) *PAYMENT OF CLAIMS.*—(1) *In the event the Under*  
2 *Secretary pays a claim under a guarantee issued under this*  
3 *section, it shall be subrogated fully to the rights satisfied*  
4 *by such payment.*

5       (2) *No State or local law, and no Federal law, shall*  
6 *preclude or limit the exercise by the Under Secretary of*  
7 *ownership rights in the preferred securities residing in a*  
8 *trust or pool against which trust certificates are issued.*

9       (f) *REGISTRATION AND INTERMEDIARY OPER-*  
10 *ATIONS.*—(1) *The Under Secretary shall provide for a*  
11 *central registration of all trust certificates sold pursuant*  
12 *to this section. Such central registration shall include with*  
13 *respect to each sale, identification of each licensee, the inter-*  
14 *est rate or dividend rate paid by the licensee, commissions,*  
15 *fees, or discounts paid to brokers and dealers in trust cer-*  
16 *tificates, identification of each purchaser of the trust certifi-*  
17 *cate, the price paid by the purchaser for the trust certificate,*  
18 *the interest rate paid on the trust certificate, the fees of any*  
19 *agent for carrying out the functions described in paragraph*  
20 *(2), and such other information as the Under Secretary*  
21 *deems appropriate.*

22       (2) *The Under Secretary shall contract with an agent*  
23 *or agents to carry out on behalf of the Under Secretary the*  
24 *pooling and the central registration functions of this section*  
25 *including, notwithstanding any other provision of law,*

1 *maintenance on behalf of and under the direction of the*  
 2 *Under Secretary, such commercial bank accounts as may*  
 3 *be necessary to facilitate trusts or pools backed by securities*  
 4 *guaranteed or purchased under this subtitle, and the issu-*  
 5 *ance of trust certificates to facilitate such poolings. Such*  
 6 *agent or agents shall provide a fidelity bond or insurance*  
 7 *in such amounts as the Under Secretary determines to be*  
 8 *necessary to fully protect the interests of the Federal Gov-*  
 9 *ernment.*

10 (3) *Prior to any sale, the Under Secretary shall require*  
 11 *the seller to disclose to a purchaser of a trust certificate*  
 12 *issued pursuant to this section, information on the terms,*  
 13 *conditions, and yield of such instrument.*

14 **SEC. 349. VENTURE CAPITAL FOR QUALIFIED BUSINESS**  
 15 **CONCERNS.**

16 *Each licensee may provide venture capital to qualified*  
 17 *business concerns, in such manner and under such terms*  
 18 *as the licensee may fix in accordance with the regulations*  
 19 *of the Under Secretary.*

20 **SEC. 350. OPERATION.**

21 (a) *COOPERATION.*—*Wherever practicable the oper-*  
 22 *ations of a licensee, including the generation of business,*  
 23 *may be undertaken in cooperation with banks or other li-*  
 24 *censees, investors, or lenders, incorporated or unincor-*  
 25 *porated, and any servicing or initial investigation required*

1 *for loans or acquisitions of securities by the licensee under*  
2 *the provisions of this subtitle may be handled through such*  
3 *banks or other licensees, investors, or lenders on a fee basis.*  
4 *Any licensee may receive fees for services rendered to such*  
5 *banks and other licensees, investors, and lenders.*

6       (b) *ADVISORY SERVICES.*—Each licensee may make  
7 *use, wherever practicable, of the advisory services of the*  
8 *Federal Reserve System and of the Department of Com-*  
9 *merce which are available for and useful to industrial and*  
10 *commercial businesses, and may provide consulting and ad-*  
11 *visory services on a fee basis and have on its staff persons*  
12 *competent to provide such services. A licensee may not*  
13 *charge fees for such services that are provided to a qualified*  
14 *business concern in which it has an investment.*

15 **SEC. 351. REGULATIONS; LIABILITY.**

16       (a) *REGULATIONS.*—The Under Secretary is author-  
17 *ized to prescribe regulations governing the operations of li-*  
18 *censees, and to carry out the provisions of this subtitle, in*  
19 *accordance with the purposes of this subtitle.*

20       (b) *LIABILITY OF THE UNITED STATES.*—Nothing in  
21 *this subtitle or in any other provision of law imposes any*  
22 *liability on the United States with respect to any obliga-*  
23 *tions entered into, or stocks issued, or commitments made,*  
24 *by any licensee operating under the provisions of this*  
25 *subtitle.*

1 **SEC. 352. TECHNICAL ASSISTANCE FOR LICENSEES AND**  
2 **QUALIFIED BUSINESS CONCERNS.**

3 (a) *TECHNICAL ASSISTANCE.*—*The Secretary shall,*  
4 *upon request, provide technical assistance and services, as*  
5 *appropriate and needed, to licensees and to qualified busi-*  
6 *ness concerns receiving financial assistance under this sub-*  
7 *title, and shall ensure that such qualified business concerns*  
8 *have ready access to appropriate assistance available under*  
9 *title III of the Stevenson-Wydler Technology Innovation Act*  
10 *of 1980, or under any other Act, in order to aid such quali-*  
11 *fied business concerns in their development or utilization*  
12 *of critical or other advanced technologies. Technical assist-*  
13 *ance and services under this subsection shall include provid-*  
14 *ing licensees and qualified business concerns with—*

15 (1) *an assessment of the technological and sci-*  
16 *entific feasibility of a project, or an analysis of a spe-*  
17 *cific field of technical or scientific endeavor;*

18 (2) *improved access to technology developed by*  
19 *the Institute and assistance in obtaining access to*  
20 *technology developed by other Federal agencies and*  
21 *laboratories;*

22 (3) *expert analysis of the economics of technology*  
23 *development undertaken by a qualified business con-*  
24 *cern; and*

25 (4) *any other assistance or service that the*  
26 *Under Secretary determines, after consultation with*



1        *licensees and qualified business concerns, is necessary*  
2        *and appropriate to enhance prospects for success and*  
3        *to reduce technical risk for licensees and qualified*  
4        *business concerns.*

5        *(b) FEES.—The Secretary may charge fees for services*  
6        *and technical assistance provided under subsection (a) in*  
7        *amounts sufficient to cover the reasonable cost of such serv-*  
8        *ices and assistance. The Secretary may waive fees estab-*  
9        *lished under this subsection.*

10    **SEC. 353. PERFORMANCE MEASURES; ANNUAL REPORT.**

11        *(a) PERFORMANCE MEASURES.—The performance of*  
12        *the program established under this subtitle shall be evalu-*  
13        *ated relative to progress made in achieving its purposes and*  
14        *shall be measured in relevant and meaningful terms such*  
15        *as significant accomplishments in advancing technology,*  
16        *businesses formed and financed, jobs created, taxes gen-*  
17        *erated, licenses granted and maintained, capital invested,*  
18        *and other criteria the Under Secretary may deem appro-*  
19        *priate.*

20        *(b) ANNUAL REPORT.—The Under Secretary shall pre-*  
21        *pare, in consultation with the advisory committee estab-*  
22        *lished under section 344, and submit annually a report to*  
23        *the Congress containing a full and detailed account of oper-*  
24        *ations under this subtitle. Such report shall include—*

1           (1) *an assessment of progress made in achieving*  
2           *the purposes of this subtitle;*

3           (2) *performance measures established under sub-*  
4           *section (a);*

5           (3) *a list of licensees along with their location,*  
6           *area of operations, investment objectives, capitaliza-*  
7           *tion, and net asset value, both at cost and at current*  
8           *fair market value;*

9           (4) *an audit setting forth the amount, type, re-*  
10          *cipient, and source of disbursements, receipts, and*  
11          *losses sustained by the Federal Government as a re-*  
12          *sult of operations under this subtitle during the pre-*  
13          *ceding fiscal year and since inception of the program;*

14          (5) *the Under Secretary's plans to ensure the*  
15          *provision of licensee financing to all areas of the*  
16          *country and to all qualified business concerns, and*  
17          *plans to notify and to encourage and facilitate the*  
18          *participation of qualified business concerns as re-*  
19          *quired by section 343(e), including steps taken to ac-*  
20          *complish those goals;*

21          (6) *steps taken by the Under Secretary to carry*  
22          *out this subtitle and to ensure compliance with statu-*  
23          *tory and regulatory standards relating thereto; and*

24          (7) *recommendations with respect to program*  
25          *changes, statutory changes, and other matters, includ-*

1        *ing tax incentives, to improve and facilitate the oper-*  
2        *ations of licensees and to encourage the use of their*  
3        *financing facilities by qualified business concerns.*

4        **SEC. 354. REPORTS, INVESTIGATIONS, AND EXAMINATIONS.**

5        *(a) REPORTING REQUIREMENTS.—Each license issued*  
6        *under this subtitle shall require a licensee with outstanding*  
7        *preferred securities to provide the Under Secretary such in-*  
8        *formation, including companies financed, disbursements*  
9        *made along with associated terms and conditions, receipts,*  
10       *portfolio valuation and net asset value at cost and at esti-*  
11       *mated fair market value, and other financial statements,*  
12       *that the Under Secretary may require to satisfy the require-*  
13       *ments of section 353(b) and to determine, in a timely man-*  
14       *ner, compliance with this subtitle and regulations promul-*  
15       *gated under this subtitle. Such reporting shall be—*

16                *(1) except as otherwise provided in this sub-*  
17                *section, consistent with the reporting practices and*  
18                *standards of the venture capital industry;*

19                *(2) uniform for all licensees;*

20                *(3) submitted annually to the Under Secretary,*  
21                *with valuation and other information provided more*  
22                *frequently as the Under Secretary may require; and*

23                *(4) certified by the Board of Directors or the*  
24                *General Partners of the licensee.*

1 *The Under Secretary may exempt from making such reports*  
2 *any licensee which is registered under the Investment Com-*  
3 *pany Act of 1940 only to the extent necessary to avoid du-*  
4 *plication in reporting requirements.*

5       (b) *VALUATIONS.*—*The Under Secretary shall, by regu-*  
6 *lation, establish guidelines for estimating the fair market*  
7 *value of investments held by a licensee as required under*  
8 *subsection (a). The board of directors of a corporate licensee*  
9 *and the general partners of a partnership licensee shall have*  
10 *the sole responsibility for making a good faith determina-*  
11 *tion of the fair market value of investments held by such*  
12 *licensee, based on guidelines established under this sub-*  
13 *section.*

14       (c) *INVESTIGATIONS.*—*The Secretary may undertake*  
15 *investigations to determine whether a licensee or any other*  
16 *person has engaged or is about to engage in any acts or*  
17 *practices which constitute or will constitute a violation of*  
18 *any provision of this subtitle, or of any rule, regulation,*  
19 *or order issued under this subtitle. The Secretary shall per-*  
20 *mit any person to file a statement in writing, under oath*  
21 *or otherwise as the Secretary shall determine, as to all the*  
22 *facts and circumstances concerning the matter to be inves-*  
23 *tigated. For the purpose of any investigation, the Secretary*  
24 *is empowered to administer oaths and affirmations, sub-*  
25 *poena witnesses, compel their attendance, take evidence,*

1 *and require the production of any books, papers, and docu-*  
 2 *ments which are relevant to the inquiry.*

3       (d) *EXAMINATIONS.*—*Each licensee shall be subject to*  
 4 *examinations made at the discretion and direction of the*  
 5 *Under Secretary by examiners selected or approved by, and*  
 6 *under the supervision of, the Under Secretary. The Under*  
 7 *Secretary may enter into contracts with private parties to*  
 8 *perform such examinations. The cost of such examinations,*  
 9 *including the compensation of the examiners, may in the*  
 10 *discretion of the Under Secretary be assessed against the*  
 11 *licensee examined and when so assessed shall be paid by*  
 12 *such licensee.*

13 ***SEC. 355. REVOCATION AND SUSPENSION OF LICENSES;***  
 14 ***CEASE AND DESIST ORDERS.***

15       (a) *GROUND FOR REVOCATION OR SUSPENSION.*—*A*  
 16 *license may be revoked or suspended by the Secretary—*

17               (1) *for willful or repeated violation of any provi-*  
 18 *sion of this subtitle or any rule, regulation, or order*  
 19 *issued thereunder; or*

20               (2) *if the licensee no longer serves the purposes*  
 21 *for which it was granted a license.*

22       (b) *CEASE AND DESIST ORDERS.*—*Where a licensee or*  
 23 *any other person has not complied with any provision of*  
 24 *this subtitle, or of any rule, regulation, or order issued*  
 25 *thereunder, or is engaging or is about to engage in any acts*

1 *or practices which constitute or will constitute a violation*  
2 *of such provision, rule, regulation, or order, the Secretary*  
3 *may order such licensee or other person to cease and desist*  
4 *from such action or failure to act. The Secretary may fur-*  
5 *ther order such licensee or other person to take such action*  
6 *or to refrain from such action as the Secretary considers*  
7 *necessary to ensure compliance with such provisions, rules,*  
8 *regulations, or orders. The Secretary may also suspend the*  
9 *license of a licensee, against whom an order has been issued,*  
10 *until such licensee complies with such order.*

11 *(c) SUBPOENAS.—The Secretary may require by sub-*  
12 *poenas the attendance and testimony of witnesses and the*  
13 *production of all books, papers, and documents relating to*  
14 *the hearing from any place in the United States.*

15 *(d) ENFORCEMENT.—If any licensee or other person*  
16 *against which or against whom an order is issued under*  
17 *this section fails to obey the order, the Secretary may apply*  
18 *to the district court of the United States for the district*  
19 *where the licensee has its principal place of business, for*  
20 *the enforcement of the order.*

21 **SEC. 356. INJUNCTIVE RELIEF.**

22 *(a) IN GENERAL.—If the Secretary determines that a*  
23 *licensee or any other person has engaged, or is about to en-*  
24 *gage, in any acts or practices which constitute a violation*  
25 *of any provision of this subtitle, or of any rule, regulation,*

1 *or order issued under this subtitle, the Secretary may apply*  
2 *to the appropriate district court of the United States for*  
3 *injunctive relief.*

4 *(b) RECEIVERSHIP.—Whenever it is necessary in order*  
5 *to achieve the purposes of injunctive relief granted under*  
6 *subsection (a), and upon proper application by the Sec-*  
7 *retary, the court may order the attachment of assets of a*  
8 *licensee and may appoint a receiver to administer such as-*  
9 *sets under the direction of the court.*

10 **SEC. 357. CONFLICTS OF INTEREST.**

11 *For the purpose of controlling conflicts of interest*  
12 *which may be detrimental to qualified business concerns,*  
13 *to licensees, to the shareholders or partners of either, or to*  
14 *the purposes of this subtitle, the Under Secretary shall*  
15 *adopt regulations to govern transactions with any officer,*  
16 *director, shareholder, or partner of any licensee, or with*  
17 *any person or concern, in which any interest, direct or in-*  
18 *direct, financial or otherwise, is held by any officer, direc-*  
19 *tor, shareholder, or partner of (1) any licensee, or (2) any*  
20 *person or concern with an interest, direct or indirect, finan-*  
21 *cial or otherwise, in any licensee. Such regulations shall*  
22 *include appropriate requirements for public disclosure (in-*  
23 *cluding disclosure in the locality most directly affected by*  
24 *the transaction) necessary to the purposes of this section.*

1 **SEC. 358. REMOVAL OR SUSPENSION OF DIRECTORS AND**  
2 **OFFICERS.**

3 (a) *GROUND.*—The Secretary, after an opportunity  
4 for agency hearing, may serve upon any director or officer  
5 of a licensee a written notice of its intention to remove such  
6 director or officer from office, temporarily or permanently,  
7 whenever in the opinion of the Secretary such director or  
8 officer—

9 (1) *has willfully and knowingly—*

10 (A) *committed any substantial violation of*  
11 *this subtitle or any rule, regulation, or order is-*  
12 *sued under this subtitle; or*

13 (B) *committed or engaged in any act, omis-*  
14 *sion, or practice which constitutes a substantial*  
15 *breach of his fiduciary duty as such director or*  
16 *officer,*

17 *and that such violation or such breach of fiduciary*  
18 *duty is one involving personal dishonesty on the part*  
19 *of such director or officer; or*

20 (2) *has been convicted of a felony involving dis-*  
21 *honesty or breach of trust.*

22 (b) *HEARING.*—A hearing under this section shall be  
23 on the record and shall be held in the Federal judicial dis-  
24 trict or in the territory in which the principal office of the  
25 licensee is located unless the party afforded the hearing con-  
26 sents to another place. A hearing under this section shall



1 *be fixed for a date not earlier than 30 days nor later than*  
2 *60 days after the date of service of such notice, unless an*  
3 *earlier or a later date is set by the Secretary at the request*  
4 *of (1) such director or officer and for good cause shown,*  
5 *or (2) the Attorney General of the United States. Unless*  
6 *such director or officer shall appear at the hearing in per-*  
7 *son or by a duly authorized representative, he shall be*  
8 *deemed to have consented to the issuance of an order of such*  
9 *removal.*

10 ***SEC. 359. VIOLATIONS.***

11 *(a) PARTICIPATION.—Whenever a licensee commits a*  
12 *violation of this subtitle, or any rule, regulation, or order*  
13 *issued under this subtitle, such violation shall be deemed*  
14 *to be also a violation on the part of any person who, directly*  
15 *or indirectly, authorizes, orders, participates in, or causes,*  
16 *brings about, counsels, aids, or abets in the commission of*  
17 *such violation.*

18 *(b) BREACH OF FIDUCIARY DUTY.—It shall be a viola-*  
19 *tion of this subtitle for any officer, director, employee,*  
20 *agent, or other participant in the management or conduct*  
21 *of the affairs of a licensee to engage in any act or practice,*  
22 *or to omit any act, in breach of his fiduciary duty as such*  
23 *officer, director, employee, agent, or participant, if, as a*  
24 *result thereof, the licensee has suffered or is in imminent*  
25 *danger of suffering financial loss or other damage.*

1       (c) *DISQUALIFICATION.*—*Except with the written con-*  
2 *sent of the Secretary, it shall be a violation of this subtitle*  
3 *for any person to take office, or to continue to serve, as*  
4 *an officer, director, or employee of a licensee, or to become*  
5 *or continue to serve as an agent or participant in the con-*  
6 *duct of the affairs or management of a licensee, if such per-*  
7 *son—*

8               (1) *has been convicted of a felony, or any other*  
9 *criminal offense involving dishonesty or breach of*  
10 *trust; or*

11              (2) *has been found civilly liable in damages, or*  
12 *has been permanently or temporarily enjoined by an*  
13 *order, judgment, or decree of a court of competent ju-*  
14 *risdiction, by reason of any act or practice involving*  
15 *fraud or breach of trust.*

16 ***SEC. 360. CIVIL PENALTIES.***

17       *Any person who is found by the Secretary, after notice*  
18 *and opportunity to be heard on the record in accordance*  
19 *with section 554 of title 5, United States Code, to have com-*  
20 *mitted a violation of this subtitle or any rule, regulation,*  
21 *or order issued under this subtitle shall be liable to the Unit-*  
22 *ed States for a civil penalty of not more than \$1,000 for*  
23 *each violation. Each day of a continuing violation shall*  
24 *constitute a separate violation. The amount of such civil*  
25 *penalty shall be assessed by the Secretary by written notice.*

1 *The Secretary may compromise, modify, or remit, with or*  
 2 *without conditions, any civil penalty which is subject to*  
 3 *imposition or which has been imposed under this section.*

4 **SEC. 361. ANTITRUST SAVINGS CLAUSE.**

5 *This subtitle shall not be construed to modify, impair,*  
 6 *or supersede the operation of the antitrust laws. For pur-*  
 7 *poses of this section, the term “antitrust laws” has the*  
 8 *meaning given it in subsection (a) of the first section of*  
 9 *the Clayton Act (15 U.S.C. 12(a)), except that such term*  
 10 *includes the Act of June 19, 1936 (49 Stat. 1526; 15 U.S.C.*  
 11 *13 et seq.), commonly known as the Robinson Patman Act,*  
 12 *and section 5 of the Federal Trade Commission Act (15*  
 13 *U.S.C. 45) to the extent that such section 5 applies to unfair*  
 14 *methods of competition.*

15 **TITLE IV—MISCELLANEOUS**

16 **SEC. 401. DEPARTMENT OF COMMERCE TECHNOLOGY ADVI-**  
 17 **SORY BOARD.**

18 *(a) ESTABLISHMENT.—There is established a Depart-*  
 19 *ment of Commerce Technology Advisory Board (in this sec-*  
 20 *tion referred to as the “Advisory Board”) to assist the Tech-*  
 21 *nology Administration in the performance of its functions.*

22 *(b) COMPOSITION.—The Advisory Board shall be com-*  
 23 *posed of at least 17 members, appointed by the Under Sec-*  
 24 *retary from among individuals who, because of their experi-*  
 25 *ence and accomplishments are exceptionally qualified to*

1 *provide advice to the Under Secretary on the plans, pro-*  
2 *grams, and policy of the Technology Administration. The*  
3 *Under Secretary shall make an effort to ensure the appoint-*  
4 *ment of socially and economically disadvantaged individ-*  
5 *uals (within the meaning of section 8(a)(5) and (6) of the*  
6 *Small Business Act, and including women) to the Advisory*  
7 *Board. The Under Secretary shall designate 1 member to*  
8 *chair the Advisory Board. Membership of the Advisory*  
9 *Board shall include representatives of—*

10 *(1) United States small businesses;*

11 *(2) other United States manufacturers;*

12 *(3) research universities and independent re-*  
13 *search institutes;*

14 *(4) State and local government agencies involved*  
15 *in technology extension;*

16 *(5) national laboratories;*

17 *(6) industrial, worker, and professional organi-*  
18 *zations;*

19 *(7) financial organizations; and*

20 *(8) computing and communications equipment*  
21 *and services providers.*

22 *(c) DUTIES.—The duties of the Advisory Board shall*  
23 *include advising the Secretary, the Under Secretary, and*  
24 *the Director regarding—*

1           (1) the development of policies and options for  
2           implementation that the Advisory Board considers es-  
3           sential to technology creation, development, and adop-  
4           tion, including policies that would benefit small busi-  
5           nesses;

6           (2) the development and rapid application of  
7           critical and other advanced technologies, including  
8           advanced manufacturing technologies;

9           (3) the development of computer and commu-  
10          nications support services for advanced manufactur-  
11          ing; and

12          (4) the planning, execution, and evaluation of  
13          programs under the authority of the Technology Ad-  
14          ministration.

15          (d) MEETINGS.—(1) The chairman shall call the first  
16          meeting of the Advisory Board not later than 90 days after  
17          the date of enactment of this Act.

18          (2) The Advisory Board shall meet at least once every  
19          6 months, and at the call of the Under Secretary.

20          (e) TRAVEL EXPENSES.—Members of the Advisory  
21          Board, other than full-time employees of the United States,  
22          shall be allowed travel expenses in accordance with sub-  
23          chapter I of chapter 57 of title 5, United States Code, while  
24          engaged in the business of the Advisory Board.

1       (f) *CONSULTATION*.—In carrying out this section, the  
2 Under Secretary shall consult with other agencies, as ap-  
3 propriate.

4       (g) *TERMINATION*.—Section 14 of the Federal Advisory  
5 Committee Act shall not apply to the Advisory Board.

6       (h) *SECRETARIAL DISCRETION*.—Notwithstanding any  
7 other provision of this section, the Secretary shall have the  
8 discretion to decide whether to establish the Advisory Board  
9 or create a more cost-effective way to achieve the goal of  
10 closer cooperation with industry. If the Secretary exercises  
11 such discretion and establishes an alternative mechanism,  
12 the Under Secretary shall make an effort to ensure the par-  
13 ticipation of socially and economically disadvantaged indi-  
14 viduals (within the meaning of section 8(a)(5) and (6) of  
15 the Small Business Act, and including women) in the alter-  
16 native mechanism.

17 **SEC. 402. INTERNATIONAL STANDARDIZATION.**

18       (a) *FINDINGS*.—The Congress finds that—

19               (1) private sector consensus standards are essen-  
20 tial to the timely development of competitive products;

21               (2) Federal Government contribution of resources  
22 and more active participation in the voluntary stand-  
23 ards process in the United States can increase the  
24 quality of United States standards, increase their  
25 compatibility with the standards of other countries,

1       *and ease access of products manufactured by United*  
2       *States manufacturers to foreign markets; and*

3               *(3) the Federal Government, working in coopera-*  
4       *tion with private sector organizations including trade*  
5       *associations, engineering societies, and technical bod-*  
6       *ies, can effectively promote United States Government*  
7       *use of United States consensus standards and, where*  
8       *appropriate, the adoption and United States Govern-*  
9       *ment use of international standards.*

10       *(b) STANDARD PILOT PROGRAM.—Section 104(e) of*  
11       *the American Technology Preeminence Act of 1991 is*  
12       *amended—*

13               *(1) by inserting “(1)” before “Pursuant to the”;*

14               *(2) by striking “matching funds” and inserting*  
15       *in lieu thereof “financial contributions deemed appro-*  
16       *priate by the Secretary”; and*

17               *(3) by adding at the end the following new para-*  
18       *graph:*

19       *“(2) As necessary and appropriate, the Institute shall*  
20       *expand the program established under section 112 of the*  
21       *National Institute of Standards and Technology Authoriza-*  
22       *tion Act for Fiscal Year 1989 (15 U.S.C. 272 note) by ex-*  
23       *tending the existing program to include other countries that*  
24       *request assistance with standards-related activities from of-*  
25       *ficial representatives of the United States Government. The*

1 *Institute may enter into additional contracts with non-Fed-*  
2 *eral organizations representing United States companies,*  
3 *as such term is defined in section 28(d)(9)(B) of the Na-*  
4 *tional Institute of Standards and Technology Act (15*  
5 *U.S.C. 278n(d)(9)(B)) or with United States-based profes-*  
6 *sional societies who participate in the development of stand-*  
7 *ards. Such contracts shall require cost sharing between Fed-*  
8 *eral and non-Federal sources for such purposes. In award-*  
9 *ing such contracts, the Institute shall seek to promote and*  
10 *support the dissemination of United States technical stand-*  
11 *ards to additional foreign countries and shall seek, as the*  
12 *Director deems appropriate, to promote the adoption of*  
13 *international standards supported by United States indus-*  
14 *try, and shall seek to assist private sector professional soci-*  
15 *eties which participate in the development of standards in*  
16 *expediting the development of domestic standards which en-*  
17 *able the introduction of technologies, products, or tech-*  
18 *nology-based services which are being delayed due to the*  
19 *lack of available standards. The Institute and such contrac-*  
20 *tors shall, in carrying out the preceding sentence, cooperate*  
21 *with governmental bodies, private organizations including*  
22 *standards setting organizations and industry, and multi-*  
23 *national institutions that promote economic development.*  
24 *The organizations receiving such contracts may establish*  
25 *training programs to bring to the United States foreign*



1 *standards experts for the purpose of receiving in-depth*  
2 *training in the United States standards system.”.*

3 *(c) REPORT ON STANDARDS.—(1) Section 508(a) of the*  
4 *American Technology Preeminence Act of 1991 (15 U.S.C.*  
5 *3701 note) is amended—*

6 *(A) by inserting “standards development and*  
7 *international” after “a thorough review of inter-*  
8 *national”;*

9 *(B) by redesignating paragraphs (1) through (5)*  
10 *as paragraphs (2) through (6), respectively; and*

11 *(C) by inserting before paragraph (2), as so re-*  
12 *designated by subparagraph (B) of this paragraph,*  
13 *the following new paragraph:*

14 *“(1) Current and potential future roles of the*  
15 *Federal Government in the development and promul-*  
16 *gation of domestic and global product and process*  
17 *standards.”.*

18 *(2) The Secretary, in consultation with the Institute*  
19 *and the Department of Commerce Technology Advisory*  
20 *Board established under section 401 of this Act and with,*  
21 *as appropriate, the active participation of the private sec-*  
22 *tor, shall submit to the Congress a report describing the ap-*  
23 *propriate roles of the Department of Commerce in aid to*  
24 *United States companies in achieving conformity assess-*  
25 *ment and accreditation and otherwise qualifying their*

1 *products in foreign markets, through the development and*  
2 *promulgation of domestic and global product and quality*  
3 *standards, and through the implementation of conformity*  
4 *assessment and accreditation procedures based upon such*  
5 *standards, including a discussion of the extent to which*  
6 *each of the policy options provided in the March 1992 Office*  
7 *of Technology Assessment report, entitled “Global Stand-*  
8 *ards”, contributes to meeting the goals of—*

9           (A) *increasing the international adoption of*  
10       *standards beneficial to United States industries; and*

11           (B) *improving the coordination of United States*  
12       *representation to international standards setting bod-*  
13       *ies.*

14       (3) *The report shall also describe emerging product*  
15 *and market areas which can be assisted by shortening the*  
16 *time required for the development of standards and make*  
17 *recommendations on contributions the Department of Com-*  
18 *merce can make to improving the timeliness of standards*  
19 *development.*

20 **SEC. 403. MALCOLM BALDRIGE AWARD AMENDMENTS.**

21       (a) *Section 108(c)(3) of the Stevenson-Wydler Tech-*  
22 *nology Innovation Act of 1980, as so redesignated by section*  
23 *206(b)(3) of this Act, is amended to read as follows:*

1       “(3) No award shall be made within any category or  
2 subcategory if there are no qualifying enterprises in that  
3 category or subcategory.”.

4       (b)(1) Section 108(c)(1) of the Stevenson-Wydler Tech-  
5 nology Innovation Act of 1980, as so redesignated by section  
6 206(b)(3) of this Act, is amended by adding at the end the  
7 following new subparagraph:

8               “(D) Educational institutions.”.

9       (2)(A) Within 1 year after the date of enactment of  
10 this Act, the Secretary shall submit to the Congress a report  
11 containing—

12               (i) criteria for qualification for a Malcolm  
13 Baldrige National Quality Award by various classes  
14 of educational institutions;

15               (ii) criteria for the evaluation of applications for  
16 such awards under section 108(d)(1) of the Stevenson-  
17 Wydler Technology Innovation Act of 1980, as so re-  
18 designated by section 206(b)(3) of this Act; and

19               (iii) a plan for funding awards described in  
20 clause (i).

21       (B) In preparing the report required under subpara-  
22 graph (A), the Secretary shall consult with the National  
23 Science Foundation and other public and private entities  
24 with appropriate expertise, and shall provide for public no-  
25 tice and comment.

1       (C) *The Secretary shall not accept applications for*  
 2 *awards described in subparagraph (A)(i) until after the re-*  
 3 *port required under subparagraph (A) is submitted to the*  
 4 *Congress.*

5       **SEC. 404. COOPERATIVE RESEARCH AND DEVELOPMENT**  
 6               **AGREEMENTS.**

7       *Section 202 of the Stevenson-Wydler Technology Inno-*  
 8 *vation Act of 1980 (15 U.S.C. 3710a), as redesignated by*  
 9 *section 206(b)(5) of this Act, is amended—*

10           (1) *in subsection (d)(1), by inserting “(including*  
 11 *both real and personal property)” after “or other re-*  
 12 *sources” both places it appears; and*

13           (2) *in subsection (d)(2)(A), by inserting “includ-*  
 14 *ing Federal test and evaluation facilities,” after “by*  
 15 *a Federal agency,”.*

16       **SEC. 405. COMPETITIVENESS ASSESSMENTS AND EVALUA-**  
 17               **TIONS.**

18       *Section 101(e) of the Stevenson-Wydler Technology In-*  
 19 *novation Act of 1980, as so redesignated by section*  
 20 *206(b)(2) of this Act, is amended to read as follows:*

21       “(e) **COMPETITIVENESS ASSESSMENTS AND EVALUA-**  
 22 **TIONS.**—(1) *The Secretary, through the Under Secretary,*  
 23 *shall—*

24           “(A) *provide for the conduct of research and*  
 25 *analyses to advance knowledge of the ways in which*

1       *the economic competitiveness of United States compa-*  
 2       *nies can be enhanced through Federal programs estab-*  
 3       *lished under the National Competitiveness Act of 1993*  
 4       *or the amendments made by that Act; and*

5               *“(B) as appropriate, provide for evaluations of*  
 6       *Federal technology programs established or expanded*  
 7       *under the National Competitiveness Act of 1993 or the*  
 8       *amendments made by that Act in order to judge their*  
 9       *effectiveness and make recommendations to improve*  
 10       *their contribution to United States competitiveness.*

11       *“(2) All executive departments and agencies shall as-*  
 12       *sist the Secretary in carrying out this section as appro-*  
 13       *priate.*

14       *“(3) Nothing in this section shall authorize the release*  
 15       *of information to, or the use of information by, the Sec-*  
 16       *retary or Under Secretary in a manner inconsistent with*  
 17       *law or any procedure established pursuant thereto.*

18       *“(4) The head of any Federal agency may detail such*  
 19       *personnel and may provide such services, with or without*  
 20       *reimbursement, as the Secretary may request to assist in*  
 21       *carrying out the activities required under this section.”.*

22       **SEC. 406. STUDY OF SEMICONDUCTOR LITHOGRAPHY TECH-**  
 23       **NOLOGIES.**

24       *Within 9 months after the date of enactment of this*  
 25       *Act, the Critical Technologies Institute (in this section re-*

1 *ferred to as the “Institute”) established under section 822*  
2 *of the National Defense Authorization Act for Fiscal Year*  
3 *1991 shall, after consultation with the private sector and*  
4 *appropriate officials from other Federal agencies, submit to*  
5 *Congress a report on advanced lithography technologies for*  
6 *the production of semiconductor devices. The report shall*  
7 *include the Institute’s evaluation of the likely technical and*  
8 *economic advantages and disadvantages of each such tech-*  
9 *nology, an analysis of current private and Government re-*  
10 *search to develop each such technology, and any rec-*  
11 *ommendations the Institute may have regarding future Fed-*  
12 *eral support for research and development in advanced li-*  
13 *thography.*

14 **SEC. 407. AMERICAN WORKFORCE QUALITY PARTNERSHIPS.**

15 *(a) AMENDMENT.—Title III of the Stevenson-Wydler*  
16 *Technology Innovation Act of 1980, as added by title II*  
17 *of this Act, is further amended by adding at the end the*  
18 *following new section:*

19 **“SEC. 305. AMERICAN WORKFORCE QUALITY PARTNER-**  
20 **SHIPS.**

21 *“(a) PROGRAM AUTHORIZED.—The Secretary may*  
22 *make grants to establish and operate American workforce*  
23 *quality partnership programs in accordance with the provi-*  
24 *sions of this section. The Secretary shall award grants on*  
25 *a competitive basis to pay the Federal share for American*

1 workforce quality partnership programs to establish  
2 workforce training consortia between industry and institu-  
3 tions of higher education.

4 “(b) *GRANT PERIOD*.—Grants awarded under this sec-  
5 tion may be for a period of 5 years.

6 “(c) *GENERAL AUTHORITY*.—Each grant recipient  
7 shall use amounts provided under the grant to develop and  
8 operate an American workforce quality partnership pro-  
9 gram.

10 “(d) *CONTENTS OF PROGRAM*.—An American  
11 workforce quality partnership program shall establish part-  
12 nerships among—

13 “(1) one or more United States manufacturers;

14 “(2) an organization or organizations represent-  
15 ing the nonmanagerial employees of the manufactur-  
16 ers described in paragraph (1); and

17 “(3) a local community technical college or other  
18 appropriate institutions of higher education, a voca-  
19 tional training institution, a Regional Center for the  
20 Transfer of Manufacturing Technology, a Manufac-  
21 turing Outreach Center, or any similar entity or con-  
22 sortium of such institutions,

23 to train the employees of the industrial partners through  
24 both workplace-based and classroom-based programs of  
25 training.

1       “(e) *FEDERAL SHARE.*—*The Federal share of the cost*  
2 *of an American workforce quality partnership program*  
3 *may not exceed 50 percent of the total cost of the program.*  
4 *The non-Federal share of such costs may be provided in-*  
5 *cash or in-kind, fairly valued. The total contribution of the*  
6 *proposed partnership should reflect a substantial contribu-*  
7 *tion on the part of the industrial partners and appropriate*  
8 *contributions of the education partners, local or State gov-*  
9 *ernments, and other appropriate entities.*

10       “(f) *APPLICATIONS.*—

11               “(1) *ELIGIBILITY.*—*Any consortium described in*  
12 *subsection (d) may apply for a grant under this sec-*  
13 *tion at such time and in such manner as the Sec-*  
14 *retary shall prescribe.*

15               “(2) *PLAN.*—*Each application submitted under*  
16 *this subsection shall contain a plan for the develop-*  
17 *ment and implementation of an American workforce*  
18 *quality partnership program under this section. Such*  
19 *plan shall—*

20                       “(A) *show a demonstrated commitment, on*  
21 *the part of the industrial partners, to adopt total*  
22 *quality management strategies or other plausible*  
23 *strategies to renew its competitive edge;*

24                       “(B) *demonstrate the need for Federal re-*  
25 *sources because of the long-term nature and risk*



1       *of such an investment, the inability to finance*  
2       *such ventures because of the high cost of capital-*  
3       *ization, intense competition from foreign indus-*  
4       *tries, or such other appropriate reasons as may*  
5       *limit the industrial partners' ability to launch*  
6       *programs where worker training and develop-*  
7       *ment is a substantial component;*

8               *“(C) demonstrate long-term benefit for all*  
9       *partners and the local economy, through an en-*  
10       *hanced competitive position of the industrial*  
11       *partners, substantial benefits for regional em-*  
12       *ployment, and the ability of the education and*  
13       *labor participants to further their capabilities to*  
14       *educate and train other nonpartnership-affili-*  
15       *ated individuals wishing to obtain or upgrade*  
16       *technical, technological, industrial management*  
17       *and leadership, or other industrial skills;*

18               *“(D) make full, appropriate, and innovative*  
19       *use of industrial and higher education resources*  
20       *and other local resources such as facilities, equip-*  
21       *ment, personnel exchanges, experts, or consult-*  
22       *ants;*

23               *“(E) provide for the establishment of an ad-*  
24       *visory board in accordance with subsection (h);*

1           “(F) include an explanation of the indus-  
2       trial partners’ plans to adopt new competitive  
3       strategies and how the training partnership aids  
4       that effort; and

5           “(G) include assurances that the eligible en-  
6       tity will maintain its aggregate expenditures  
7       from all sources for employee training, other  
8       than those provided under this section, at or  
9       above the average level of such expenditures in  
10      the 2 fiscal years preceding submission of an ap-  
11      plication for assistance under this section.

12      “(3) APPROVAL.—

13           “(A) IN GENERAL.—The Secretary shall ap-  
14      prove applications based on their potential to  
15      create an effective American workforce quality  
16      partnership program in accordance with this  
17      section.

18           “(B) CRITERIA.—In reviewing grant appli-  
19      cations, the Secretary shall give significant con-  
20      sideration to the following criteria:

21           “(i) Saliency of argument for requir-  
22      ing a Federal investment.

23           “(ii) Commitment of partnership to  
24      continue operation after the termination of  
25      Federal funding.

1           “(iii) *The likelihood that the training*  
2           *will improve the long-term competitiveness*  
3           *of the industrial partners and contribute*  
4           *significantly to economic growth.*

5           “(iv) *The likelihood that the partner-*  
6           *ship will benefit the education mission of*  
7           *the education partners in ways outside of*  
8           *the scope of the partnership, such as devel-*  
9           *oping the capability to train other*  
10          *nonpartnership-affiliated individuals in*  
11          *similar skills.*

12          “(C) *PRIORITY CONSIDERATION.—The Sec-*  
13          *retary shall give priority consideration to indus-*  
14          *tries which are threatened by intense foreign*  
15          *competition important to the long-term national*  
16          *economic or military security of the United*  
17          *States and industries which are critical in ena-*  
18          *bling other United States industries to maintain*  
19          *a healthy competitive position. In addition, the*  
20          *Secretary shall give priority to applicants in*  
21          *areas of high poverty and unemployment.*

22          “(g) *USE OF FUNDS.—*

23               “(1) *APPROVED USES.—Federal funds may be*  
24               *used for—*

1           “(A) the direct costs of workplace-based and  
2           classroom-based training in advanced technical,  
3           technological, and industrial management, skills,  
4           and training for the implementation of total  
5           quality management and technology manage-  
6           ment strategies, or other competitiveness strate-  
7           gies, contained in the applicant’s plan submitted  
8           under subsection (f)(2)(F);

9           “(B) the purchase or lease of equipment or  
10          other materials for the purpose of instruction to  
11          aid in training;

12          “(C) the development of in-house curricula  
13          or coursework or other training-related pro-  
14          grams, including the training of teachers and  
15          other eligible participants to utilize such curric-  
16          ula or coursework; and

17          “(D) reasonable administrative expenses  
18          and other indirect costs of operating the partner-  
19          ship which may not exceed 10 percent of the  
20          total cost of the program.

21          “(2) LIMITATIONS.—Federal funds may not be  
22          used for nontraining related costs of adopting new  
23          competitive strategies including the replacement of  
24          manufacturing equipment, product redesign and  
25          manufacturing facility construction costs, or salary

1       *compensation of the partners' employees. Grants shall*  
2       *not be made under this section for programs that will*  
3       *impair any existing program, contract, or agreement*  
4       *without the written concurrence of the parties to such*  
5       *program, contract, or agreement.*

6       “(h) *ADVISORY BOARD.*—

7               “(1) *Each partnership shall establish an advisory board which shall include representation from*  
8               *each of the following categories:*

10                       “(A) *Multiple organizational levels of the*  
11                       *industrial partners, that shall include managerial employees.*

13                       “(B) *The education partners.*

14                       “(C)       *Organizations       representing*  
15                       *nonmanagerial employees.*

16       “(2) *The advisory board shall—*

17                       “(A) *advise the partnership on the general*  
18                       *direction and policy of the partnership including*  
19                       *training, instruction, and other related issues;*

20                       “(B) *report to the Secretary after the second*  
21                       *and fourth year of the program, on the progress*  
22                       *and status of the partnership, including its*  
23                       *strengths, weaknesses, and new directions, the*  
24                       *number of individuals served, types of services*  
25                       *provided, and an outline of how the program can*

1       *be integrated into the existing training infra-*  
2       *structure in place in other Federal agencies and*  
3       *departments; and*

4               “(C) *assist in the revision of the plans (sub-*  
5       *mitted with the application under subsection*  
6       *(f)(2)(F)) and include revised plans as necessary*  
7       *in the reports required under subparagraph*  
8       *(B).”.*

9       ***(b) EFFECTIVE DATE.***—*The amendment made by sub-*  
10      *section (a) shall take effect on October 1, 1994.*

11      ***SEC. 408. SEVERABILITY.***

12       *If any provision of this Act or the amendments made*  
13      *by this Act, or the application thereof to any person or cir-*  
14      *cumstance, is held invalid, the remainder of this Act and*  
15      *the amendments made by this Act, and the application*  
16      *thereof to other persons or circumstances, shall not be*  
17      *affected thereby.*

18      ***SEC. 409. SUNSET.***

19       ***(a) REPORT TO CONGRESS.***—*Before April 1, 1995, the*  
20      *Secretary shall submit to the Congress a report that evalu-*  
21      *ates the success of the programs established by this Act, and*  
22      *the amendments made by this Act, in achieving the pur-*  
23      *poses of this Act.*

24       ***(b) LIMITATION ON APPROPRIATIONS.***—*Notwithstand-*  
25      *ing any other provision of this Act, no funds are authorized*

1 *to be appropriated for any fiscal year after fiscal year 1995*  
 2 *for carrying out the programs for which funds are author-*  
 3 *ized by this Act, or the amendments made by this Act.*

4 ***SEC. 410. USE OF DOMESTIC PRODUCTS.***

5 *(a) PROHIBITION AGAINST FRAUDULENT USE OF*  
 6 *“MADE IN AMERICA” LABELS.—(1) A person shall not in-*  
 7 *tentionally affix a label bearing the inscription of “Made*  
 8 *in America”, or any inscription with that meaning, to any*  
 9 *product sold in or shipped to the United States, if that*  
 10 *product is not a domestic product.*

11 *(2) A person who violates paragraph (1) shall not be*  
 12 *eligible for any contract for a procurement carried out with*  
 13 *amounts authorized under this Act, or under any amend-*  
 14 *ment made by this Act, including any subcontract under*  
 15 *such a contract pursuant to the debarment, suspension, and*  
 16 *ineligibility procedures in subpart 9.4 of chapter 1 of title*  
 17 *48, Code of Federal Regulations, or any successor proce-*  
 18 *dures thereto.*

19 *(b) COMPLIANCE WITH BUY AMERICAN ACT.—(1) Ex-*  
 20 *cept as provided in paragraph (2), the head of each agency*  
 21 *which conducts procurements shall ensure that such pro-*  
 22 *curements are conducted in compliance with sections 2*  
 23 *through 4 of the Act of March 3, 1933 (41 U.S.C. 10a*  
 24 *through 10c, popularly known as the “Buy American Act”).*

1       (2) *This subsection shall apply only to procurements*  
2 *made for which—*

3           (A) *amounts are authorized by this Act, or by*  
4 *any amendment made by this Act, to be made avail-*  
5 *able; and*

6           (B) *solicitations for bids are issued after the date*  
7 *of enactment of this Act.*

8       (3) *The Secretary, before January 1, 1995, shall report*  
9 *to the Congress on procurements covered under this sub-*  
10 *section of products that are not domestic products.*

11       (c) *DEFINITIONS.—For the purposes of this section, the*  
12 *term “domestic product” means a product—*

13           (1) *that is manufactured or produced in the*  
14 *United States; and*

15           (2) *at least 50 percent of the cost of the articles,*  
16 *materials, or supplies of which are mined, produced,*  
17 *or manufactured in the United States.*

18 **SEC. 411. NATIONAL QUALITY PROGRAM.**

19       (a) *ESTABLISHMENT.—There is established, under the*  
20 *supervision of the Director, a National Quality Program*  
21 *(in this section referred to as the “Program”). The purpose*  
22 *of the Program shall be to enhance the Malcolm Baldrige*  
23 *National Quality Award, to disseminate information, and*  
24 *to promote and take part in educational and research ac-*  
25 *tivities regarding ways in which United States companies*



1 *and organizations can improve their quality management*  
2 *practices and productivity.*

3 (b) *ACTIVITIES.*—*As part of the Program, the Director*  
4 *is authorized—*

5 (1) *to develop industry-led workshops, seminars,*  
6 *and other mechanisms to disseminate broadly to*  
7 *United States companies and organizations the best*  
8 *practices available in total quality management, in-*  
9 *cluding the practices and quality improvement strate-*  
10 *gies successfully employed by those firms that have*  
11 *won the Malcolm Baldrige National Quality Award,*  
12 *as well as best practices in lean production methods,*  
13 *market-driven product improvement, and customer-*  
14 *supplier relations;*

15 (2) *to work with industry leaders and others to*  
16 *develop both measures of quality and recommenda-*  
17 *tions concerning what skills employees should have in*  
18 *order to participate effectively in company quality*  
19 *programs; and*

20 (3) *to explore, with private industry, other Fed-*  
21 *eral agencies, and State and local government, inno-*  
22 *vative ways in which 2-year colleges and other edu-*  
23 *cational institutions can teach quality assurance tech-*  
24 *niques and related background skills to industrial*  
25 *workers in both manufacturing and services.*

1     **TITLE V—AUTHORIZATIONS OF**  
2                     **APPROPRIATIONS**

3     **SEC. 501. TECHNOLOGY ADMINISTRATION.**

4         *There are authorized to be appropriated to the Sec-*  
5     *retary, to carry out the activities of the Under Secretary*  
6     *and the Assistant Secretary of Commerce for Technology*  
7     *Policy, in addition to any other amounts authorized for*  
8     *such purposes, for the Office of the Under Secretary—*

9             (1) *\$5,425,000 for fiscal year 1994; and*

10            (2) *\$10,000,000 for fiscal year 1995, of which*  
11     *\$2,000,000 are authorized for competitiveness assess-*  
12     *ments and evaluations under section 101(e) of the*  
13     *Stevenson-Wydler Technology Innovation Act of 1980,*  
14     *as so redesignated by section 206(b)(2) of this Act.*

15     **SEC. 502. NATIONAL INSTITUTE OF STANDARDS AND TECH-**  
16                     **NOLOGY.**

17         (a) *INTRAMURAL SCIENTIFIC AND TECHNICAL RE-*  
18     *SEARCH AND SERVICES.—(1) There are authorized to be ap-*  
19     *propriated to the Secretary, to carry out the intramural*  
20     *scientific and technical research and services activities of*  
21     *the Institute, \$240,988,000 for fiscal year 1994 and*  
22     *\$300,000,000 for fiscal year 1995.*

23            (2) *Of the amounts authorized under paragraph (1)—*

1           (A) \$1,000,000 for fiscal year 1994 and  
2           \$1,000,000 for fiscal year 1995 are authorized only  
3           for the evaluation of nonenergy-related inventions;

4           (B) \$9,000,000 for fiscal year 1994 and  
5           \$10,000,000 for fiscal year 1995 are authorized only  
6           for the technical competence fund; and

7           (C) \$2,000,000 for fiscal year 1994 and  
8           \$3,000,000 for fiscal year 1995 are authorized only  
9           for the standards pilot project established under sec-  
10          tion 104(e) of the American Technology Preeminence  
11          Act of 1991.

12          (b) TRANSFERS.—(1) Funds may be transferred  
13          among the line items listed in subsection (a), so long as—

14               (A) the net funds transferred to or from any line  
15               item do not exceed 10 percent of the amount author-  
16               ized for that line item in such subsection;

17               (B) the aggregate amount authorized under sub-  
18               section (a) is not changed; and

19               (C) the Committee on Commerce, Science, and  
20               Transportation of the Senate and the Committee on  
21               Science, Space, and Technology of the House of Rep-  
22               resentatives are notified in advance of any such  
23               transfer.

24          (2) The Secretary may propose transfers to or from  
25          any line item listed in subsection (a) exceeding 10 percent

1 *of the amount authorized for such line item, but such pro-*  
2 *posed transfer may not be made unless—*

3 *(A) a full and complete explanation of any such*  
4 *proposed transfer and the reason therefor are trans-*  
5 *mitted in writing to the Speaker of the House of Rep-*  
6 *resentatives, the President of the Senate, and the ap-*  
7 *propriate authorizing Committees of the House of*  
8 *Representatives and the Senate; and*

9 *(B) 30 days have passed following the trans-*  
10 *mission of such written explanation.*

11 *(c) EXTRAMURAL INDUSTRIAL TECHNOLOGY SERV-*  
12 *ICES.—In addition to the amounts authorized under sub-*  
13 *section (a), there are authorized to be appropriated to the*  
14 *Secretary, to carry out the extramural industrial technology*  
15 *services activities of the Institute—*

16 *(1) for Regional Centers for the Transfer of Man-*  
17 *ufacturing Technology, for the National Technology*  
18 *Outreach Program established under section 303 of*  
19 *the Stevenson-Wydler Technology Innovation Act of*  
20 *1980, and for the National Quality Program estab-*  
21 *lished under section 410 of this Act—*

22 *(A) for fiscal year 1994, \$30,035,000; and*

23 *(B) for fiscal year 1995, \$150,000,000, of*  
24 *which \$50,000,000 are authorized for Regional*  
25 *Centers for the Transfer of Manufacturing Tech-*

1           nology, and of which \$97,000,000 are authorized  
2           for the National Technology Outreach Program;  
3           (2) for the State Technology Extension Program,  
4           \$3,000,000 for fiscal year 1994 and \$3,000,000 for  
5           fiscal year 1995; and

6           (3) for the Advanced Technology Program—

7                 (A) \$197,489,000 for fiscal year 1994, of  
8                 which \$20,000,000 are authorized for the Ad-  
9                 vanced Manufacturing Technology Development  
10                Program established under section 304 of the  
11                Stevenson-Wydler Technology Innovation Act of  
12                1980; and

13               (B) \$450,000,000 for fiscal year 1995, of  
14                which \$100,000,000 are authorized for carrying  
15                out section 322 of this Act, and of which  
16                \$50,000,000 are authorized for the Advanced  
17                Manufacturing Technology Development Pro-  
18                gram established under section 304 of the Steven-  
19                son-Wydler Technology Innovation Act of 1980.

20           (d) *FACILITIES CONSTRUCTION.*—There are authorized  
21           to be appropriated to the Secretary, to carry out construc-  
22           tion and modernization of Institute facilities, \$61,686,000  
23           for fiscal year 1994 and \$106,000,000 for fiscal year 1995.

24           (e) *LIMITATION.*—Notwithstanding any other provi-  
25           sion of this title, the total amount which may be appro-

1 *priated to the Secretary pursuant to this title for fiscal year*  
2 *1995 shall not exceed \$950,000,000.*

3 ***SEC. 503. ADDITIONAL ACTIVITIES OF THE TECHNOLOGY***  
4 ***ADMINISTRATION.***

5 *In addition to the amounts authorized under sections*  
6 *501 and 502, there are authorized to be appropriated to*  
7 *the Secretary—*

8 *(1) for the Civilian Technology Loan Program*  
9 *established under subtitle C of title III of this Act,*  
10 *\$1,000,000 for fiscal year 1994 and \$20,000,000 for*  
11 *the fiscal year 1995;*

12 *(2) for the Civilian Technologies Development*  
13 *Program established under subtitle D of title III of*  
14 *this Act, \$1,000,000 for fiscal year 1994 and*  
15 *\$50,000,000 for the fiscal year 1995;*

16 *(3) for carrying out the Benchmarking Program*  
17 *established under title IV of the Stevenson-Wydler*  
18 *Technology Innovation Act of 1980, \$2,000,000 for*  
19 *fiscal year 1994 and \$10,000,000 for fiscal year 1995;*  
20 *and*

21 *(4) for carrying out the American workforce*  
22 *quality partnership program established under section*  
23 *305 of the Stevenson-Wydler Technology Innovation*  
24 *Act of 1980, \$50,000,000 for fiscal year 1995.*

1 *Of the amounts made available under paragraph (1) for*  
 2 *a fiscal year, not more than \$2,000,000 or 10 percent,*  
 3 *whichever is greater, shall be available for administrative*  
 4 *expenses. Of the amounts made available under paragraph*  
 5 *(2) for a fiscal year, not more than \$5,000,000 or 10 per-*  
 6 *cent, whichever is greater, shall be available for administra-*  
 7 *tive expenses. The Secretary shall ensure that audits are*  
 8 *performed by independent auditors on the programs for*  
 9 *which funds are appropriated pursuant to this section or*  
 10 *section 502(c). The summary results of such audits shall*  
 11 *be submitted to the Congress by the end of each of the fiscal*  
 12 *years 1994 and 1995, and not more than \$2,000,000, or*  
 13 *2 percent of the aggregate amount made available under*  
 14 *such section and subsection, whichever is greater, shall be*  
 15 *used in each such fiscal year for performing the audits.*

16 **SEC. 504. NATIONAL SCIENCE FOUNDATION.**

17 *In addition to such other sums as may be authorized*  
 18 *by other Acts to be appropriated to the Director of the Na-*  
 19 *tional Science Foundation, there are authorized to be ap-*  
 20 *propriated to that Director—*

- 21 *(1) for carrying out section 212 of this Act,*  
 22 *\$20,000,000 for fiscal year 1995; and*  
 23 *(2) for carrying out section 213 of this Act,*  
 24 *\$30,000,000 for fiscal year 1995.*

1 **SEC. 505. AVAILABILITY OF APPROPRIATIONS.**

2 *Except as otherwise provided in this title, appropria-*  
3 *tions made under the authority provided in this title shall*  
4 *remain available for obligation until expended.*

5 **SEC. 506. SENSE OF THE CONGRESS.**

6 *It is the sense of the Congress that the programs au-*  
7 *thorized by this Act are not sufficient to address the root*  
8 *cause of the competitiveness problems facing United States*  
9 *commerce and manufacturing. Further, it is the sense of*  
10 *the Congress that there exist fundamental competitiveness*  
11 *disadvantages imposed by Government on American busi-*  
12 *ness, and that the Federal Government can fuel economic*  
13 *growth and private sector job creation by reducing the na-*  
14 *tional debt to reduce the cost of capital, providing tax in-*  
15 *centives to further enhance private capital formation, re-*  
16 *forming antitrust law to remove barriers to cooperative en-*  
17 *terprise, instituting civil justice reform to reduce litigious*  
18 *burdens, and reexamining those provisions of law and regu-*  
19 *lation which are anticompetitive in nature. Finally, it is*  
20 *the sense of the Congress that legislation implementing these*  
21 *needed reforms should be enacted this year.*

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